

## United States Department of the Interior



### BUREAU OF LAND MANAGEMENT

Egan Field Office

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Ely, Nevada 89301-9408

[http://www.blm.gov/nv/st/en/fo/ely\\_field\\_office.html](http://www.blm.gov/nv/st/en/fo/ely_field_office.html)

2860 (NVL0100)

N-89754

**JAN 05 2012**

### DECISION

Bald Mountain Mine

P.O. Box 2706

Elko, NV 89803

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**Decision Record DOI-BLM-NV-  
L010-2011-0031-EA**

I have reviewed the application and the EA and have made a Finding of No Significant Impact (FONSI) for Bald Mountain Mine, who is requesting:

To authorize a new communication site ROW lease N-89754. This project is located in Newark Valley on Little Bald Mountain, and is part of the Barrick Gold US Inc. mining operations.

This action would authorize two existing towers (A and B), an existing access road, installation of a new powerline from the site to the Sage Flat transformer, installation of a 20 kilowatt propane generator at Tower B for back-up power, installation of Tower C fitted with a wind generator, and installation of microwave tower D.

I approve this *federal action*.

### RATIONALE:

- 1) The Proposed Action is in conformance with the Ely District Record of Decision and Approved Resource Management Plan signed in August of 2008.
- 2) The Proposed Action is consistent with all other federal, state, local, and tribal policies and plans to the maximum extent possible.
- 3) The Purpose and need for this action is to authorize existing communication facilities as well as to expand those facilities, which will improve internal services and power options for the mining operation of Barrick Gold US Inc.

#### **4) PUBLIC INVOLVEMENT:**

This proposal was presented to the Egan Field Office Interdisciplinary Team to begin scoping on May 9, 2011. Consultation regarding the project was initiated by the BLM with the Nevada Department of Wildlife (NDOW) and with identified Native American tribes.

#### **APPEALS:**

This decision may be appealed to the Interior Board of Land Appeals (Board), U. S. Department of the Interior (DOI) Office of Hearings and Appeals, in accordance with the regulations contained in 43 CFR, Part 4. The appellant has the burden of showing that the decision appealed from is in error. If an appeal is taken, a notice of appeal must be filed at the Bureau of Land Management at the above address within 30 days of either of receipt of the decision if served a copy of the document, or otherwise within 30 days of the date of the decision. If sent by United States Postal Service, the notice of appeal must be sent to the following address:

Bureau of Land Management  
Ely District Office  
HC 33 Box 33500  
Ely, NV 89301.

The appeal may include a statement of reasons at the time the notice of appeal is filed, or the statement of reasons may be filed within 30 days of filing this appeal. At the same time the original documents are filed with this office, copies of the notice of appeal, statement of reasons, and all supporting documentation also must be sent to the U. S. DOI Solicitor at the following address:

Regional Solicitor, Pacific Southwest Region  
U.S. Department of the Interior  
2800 Cottage Way, Room E-2753  
Sacramento, CA 95825-1890

If a statement of reasons is filed separately from the notice of appeal, it also must be sent to the following location within 30 days after the notice of appeal was filed:

Interior Board of Land Appeals  
Office of Hearings and Appeals  
4015 Wilson Boulevard  
Arlington, VA 22203

This Decision will remain in effect during the appeal unless a petition for stay is filed. If the appellant wishes to file a petition pursuant to regulations at 43 CFR 4.21 for a stay of the effectiveness of this decision during the time that the appeal is being reviewed by the Board, the petition for a stay must accompany the notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. If the appellant requests a stay, the appellant has the burden of proof to demonstrate that a stay should be granted.



### Standards for Obtaining a Stay

Except as otherwise provided by law or by other pertinent regulation, a Petition for a Stay of a Decision pending appeal shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied,
- (2) The likelihood of the appellant's success on the merits,
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

Approved by:

                      
Gary Medlyn  
Field Manager  
Egan Field Office

*Ulin Meyer, for*

                      
Date

*January 5, 2012*

# **U.S. Department of the Interior**

## **Bureau of Land Management**

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**Final Environmental Assessment  
DOI-BLM-NV-L010-2011-0031-EA  
November 4, 2011**

### **Little Bald Mountain Communication Site**

***Location:***

**White Pine County**

***Applicant/Address:***

**Barrick Gold U.S., Inc.  
Bald Mountain Mine  
P.O. Box 2706  
Elko, NV 89803**

U.S. Department of the Interior  
Bureau of Land Management  
Ely District Office  
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## 1. INTRODUCTION

This Environmental Assessment (EA) has been prepared to analyze the Barrick Gold U.S., Inc. (Barrick) proposal relative to the Bald Mountain Mine Little Bald Mountain Communication Site Plan of Development (project). The general location is shown on Figure 1. The EA is a site-specific analysis of potential impacts that could result with the implementation of a Proposed Action or alternatives to the Proposed Action. The EA assists the Bureau of Land Management (BLM) in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any “significant” impacts could result from the analyzed actions. “Significance” is determined by the consideration of context and intensity of the impacts. If there is a Finding of No Significant Impact (FONSI), the context and intensity criteria are listed with rationale for the determination in the FONSI document.

This document is tiered to, and incorporates by reference, information from the following reports for the given resources:

- *Final Environmental Impact Statement for the Bald Mountain Mine North Operations Area Project* (NVN-082888) released in August 2009 (FEIS) – air quality, cultural resources, migratory birds, Native American religious and other concerns, water resources, special status plant and animal species, fish and wildlife, soils, visual resources, and cumulative effects;
- *Placer Dome U.S. Inc., Bald Mountain Mine Little Bald Mountain Mine Underground Mining and Haul Road Environmental Assessment* (NV-040-06-035) released in September 2006 (LBM EA) – cultural resources, migratory birds, and special status animal species; and
- *Mooney Basin and Little Bald Mountain Expansion Project Environmental Assessment* (DOI-BLM-NV-L010-2011-0001-EA) released in July 2011 (MB LBM EA) – visual resources and weed risk assessment.

Should a determination be made that implementation of the proposed or alternative actions would not result in “significant environmental impacts” or “significant environmental impacts beyond those already disclosed in the existing NEPA documents”, a FONSI would be prepared to document that determination, and a Decision Record issued providing the rationale for approving the chosen alternative.

### 1.1. Background

The BLM has previously authorized Barrick to disturb approximately 8,270 acres within the North Operations Area (NOA) and the Little Bald Mountain (LBM) project areas associated with pits, rock disposal areas (RDAs), heap leaching, roads, growth media stockpiles, exploration, and underground mining activities. Subsequently, the *Mooney Basin and Little Bald Mountain Mine Expansion Project Environmental Assessment* combined these project areas and increased the proposed disturbance by approximately 630 acres. The Plan area for the Proposed Action is located to the south of these areas as shown on Figure 2. The existing and permitted facilities in the vicinity area are referred to as the Bald Mountain Mine (BMM) NOA which are within the BMM NOA project area.

Barrick proposes to permit two existing towers (towers A and B) and expand the communications site services and power options on Little Bald Mountain. The Proposed Action would include the following:

- Permit existing towers A, B and the existing access road;
- Install a powerline to the site from the Sage Flat transformer;
- Install a 20 kilowatt (kW) propane generator at Tower B to be used as back-up power;
- Install Tower C fitted with a wind generator; and
- Install Microwave Tower D.

## **1.2. Purpose of the Proposed Action**

The BLM's purpose is to respond to an application received by Barrick for the authorization of the proposed project, which consists of existing communication facilities as well as the expansion of those facilities, and to provide a legitimate use of public lands to the proponent. Legitimate uses are those that are authorized under the Federal Lands Management Policy Act (FLPMA) of 1976 or other Public Land Acts and meet the proponent's objectives while preventing undue and unnecessary degradation.

## **1.3. Need for the Proposed Action**

The BLM needs to consider approval of the application for the proposed project by responding to its mandate under FLPMA to manage public lands for multiple use while protecting scientific, scenic, historic, archaeological, ecological, environmental, air and atmospheric, and hydrologic values.

Decision to be made: Whether to issue a communication lease for Little Bald Mountain to Barrick for the purpose of improving on-site communications.

## **1.4. Relationship to Planning**

### **1.4.1. Conformance with BLM Land Use Plan(s)**

The Proposed Action is in conformance with the Lands and Realty communication site parameter objective LR-35 of the *Ely District Record of Decision and Approved Resource Management Plan* (BLM 2008) which is to:

- Authorize communication site locations that support community and economic development with an emphasis on co-location of sites.

The Proposed Action and alternatives have also been analyzed within the scope of other relevant plans, statutes, regulations, executive orders, and manuals listed in Appendix A.

## **1.5. Relationship to Statutes, Regulations, or other Plans**

The Proposed Action and alternatives are also consistent with the *White Pine County Public Land Use Plan* (White Pine County 1998) Policy 3-3 regarding rights-of-way which supports the designation of corridors for communications as well as other uses on federally administered lands in accordance with the NEPA process.

## **1.6. Scoping and Public Involvement and Issues**

Internal scoping was conducted by an interdisciplinary team that analyzed the potential consequences of the Proposed Action on May 9, 2011. Preliminary issues identified during internal scoping and preparation of the Plan of Development are listed below along with the sections under which they are addressed. Design features applicable to the proposed project are discussed in Section 2.2.8.

- Would air quality be affected by the project? (Sections 3.0 and 3.3.1);
- Would cultural resources and Native American religious concerns be affected by the project? (Sections 3.0 and 3.3.2);
- What potential impacts to water resources would be expected? (Sections 3.0 and 3.3.5);
- What impacts would the proposed action have on wildlife and wildlife habitat? (Sections 3.0, 3.3.3, 3.3.6, and 3.3.7);
- Would the proposed project and related structures have avian safety features to protect migratory birds, including raptors? (Section 2.2.8);
- What potential impacts to special status species would be expected? (Sections 3.0 and 3.3.6);
- What potential wastes, hazardous and solid would be expected for the proposed project? (Section 3.3.5);
- What potential impacts to soil resources would be expected? (Section 3.3.8); and
- How would the existing visual character of the landscape be altered? (Section 3.3.9).

Scoping with Native American tribes was initiated during the BLM internal scoping and review period. Please see Section 5 for the scoping details.

Consultation regarding the proposed project was initiated by the BLM with the Nevada Department of Wildlife (NDOW) on May 3, 2011. No comments have been received.

The preliminary EA was posted to the National NEPA Register and letters notifying interested members of the public of a 30-day comment period were sent on November 21, 2011.



## 2. DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

### 2.1. Introduction

The previous section presented the purpose and need for the proposed project, as well as the relevant issues, i.e., those elements that could be affected by the implementation of the proposed project. The Proposed Action and alternatives are presented below. The potential environmental impacts or consequences resulting from the implementation of each alternative are then analyzed in Section 3 for each of the identified issues.

### 2.2. Proposed Action

Barrick's gold mining operations occur within the BMM NOA project area. Mining activities require radio, telephone, and digital communications. The Proposed Action would improve the reliability of on-site communications as well as communications between the site and other areas, thus improving safety and operations efficiency. A Plan of Development and SF-299 are included in Appendix B.

Two communication towers currently exist on Little Bald Mountain. Barrick proposes to permit the two existing towers (towers A and B) and expand the communications site services and power options. The proposed activities are illustrated on figures 2 and 3 and would include the following:

- Permit existing towers A, B and the existing access road;
- Install a powerline to the site from the Sage Flat transformer;
- Install a 20 kW propane generator at Tower B to be used as back-up power;
- Install Tower C fitted with a wind generator; and
- Install Microwave Tower D.

The proposed rights-of-way (ROW) and associated disturbances are summarized in Table 2.1. Descriptions of the proposed components are provided in the following sections.

**Table 2.1: Summary of Proposed Disturbance within the Proposed Plan Area**

Component	ROW (acres)	Disturbance (acres)
Existing Facilities <sup>1</sup>	2.9	2.9
Proposed Facilities <sup>2</sup>	17.3 <sup>3</sup>	1.3
<b>Total</b>	<b>20.1</b>	<b>4.2</b>

(1) Includes towers A, B, and the existing access road

(2) Includes Tower C, Microwave Tower D, the powerline and construction/emergency maintenance road to the Sage Flat transformer station

(3) Existing access road ROW and the powerline corridor ROW overlap by 0.1 acre

In summary, approximately 20.1 acres would be included under a ROW including approximately 4.2 acres of disturbance. Of this, approximately 2.9 acres of disturbance already exists in association with the existing access road and towers A and B. New disturbance would equal approximately 1.3 acres.

### **2.2.1. Access**

The BMM NOA project area is accessed via the following four routes. The proposed communication site is accessed through the BMM NOA project area as shown on Figure 2:

- From Elko via State Highway 228 (Jiggs Highway) south;
- From Ely via State Highway 50 to State Highway 892 (Strawberry Highway);
- From Ely via State Highway 50 to Long Valley Road; and
- From Eureka via Highway 50 to State Highway 892 (Strawberry Highway).

### **2.2.2. Plan Area**

The Plan area is defined by the proposed ROW area encompassing approximately 20.1 acres including the existing towers and access road as well as the proposed facilities. The Plan area is located on public lands administered by the BLM Egan Field Office.

### **2.2.3. Existing Facilities to be Permitted**

Tower A was constructed in the early 1980's and held the original voice radio system for the mine. In 2007 Tower B was installed, and Tower A became a voice radio system back-up. In 2009 Tower A's original mast was replaced with an identical mast and Wi-Fi antennas were attached; the back-up voice radio system antenna was removed from the mast and installed on the adjacent wood storage building. The existing mast is a 20-foot high lattice frame on a five-square foot concrete foundation. Six Cisco Wi-Fi system antennas are mounted on this mast with power sourced from Tower B.

The adjacent wooden storage building measures four by six feet and is partially buried into the ground with no foundation. The storage building houses three deep-cycle batteries, the secondary Motorola voice repeater, and supports a solar panel array. It also serves as a mounting structure for the secondary voice radio system antenna.

Tower B was installed in 2007 and consists of a 30-foot high lattice frame mast on a five-square foot concrete foundation. Two primary voice radio system antennas and two data microwave system antennas are mounted on this mast. The adjacent metal storage building is an eight by 16-foot steel Conex container set on drill steel piers. The building houses three banks of deep-cycle batteries, supports solar panel arrays, contains facilities to support a wind generator, and a back-up diesel power system consisting of a seven kW Kubota diesel generator. Barrick is currently in the process of removing this generator.

Towers A and B are connected via approximately 22 feet of PVC conduit elevated above the surface approximately four feet with weighted supports every three horizontal feet. The conduit supplies power from the steel storage building next to Tower B to the Cisco Wi-Fi system antennas mounted on Tower A.

The tower coordinates in North American Datum (NAD) 27 State Plane East feet are:

- Tower A: Northing 1,884,912.88 and Easting 508,258.96
- Tower B: Northing 1,884,895.67 and Easting 508,250.5

The access road has existed in this location since the 1980's and would continue to be used for access to the site under all options. The access road traverses through Township 24 North, Range 57 East, sections 21 and 28.

#### **2.2.4. Proposed Facilities**

Approximately 4,200 feet of 220 volt powerline would be constructed from the Sage Flat transformer station to the communication site of which approximately 3,612 feet would be located outside of the BMM NOA project area as shown on Figure 2. The powerline would be constructed with an approximately 15-foot wide construction/emergency maintenance road and would consist of single wooden poles spaced at a maximum of 300 feet apart; approximately 15 poles would be required. The poles would be approximately 45 feet tall except over road crossings where the poles would be approximately 100 feet tall. The construction/emergency maintenance road would not be maintained nor used for regular access. The powerline and road would traverse across Township 24 North, Range 57 East, sections 27 and 28 and would be constructed by a contractor on behalf of Barrick.

Barrick would install a 20 kW propane generator to be used as backup power until the more stable wind and grid power options are in use. However, Barrick may decide to leave the propane generator in place and will permit the generator accordingly through the Nevada Division of Environmental Protection. The generator and 1,000 gallon propane tank would be skid-mounted and placed directly on the ground.

Tower C would consist of a 30-foot tall lattice frame mast on an approximately four-square foot concrete foundation fitted with a wind generator. The tower would be placed up to 74 feet from Tower B as shown on Figure 3 but could be located closer (see Tower C option A and option B locations on Figure 3). The exact location would depend on position of greatest wind reception as determined by engineering studies. Tower C would be connected to Tower B through an above-ground PVC conduit.

The wind generator would be a VBINE Energy or similar vertical axis wind turbine which is a permanent magnet generator that takes wind from any direction. The cylindrical blade area measures just over 3.6 meters in width.

Tower D would be constructed to support microwave communication equipment. The tower would be an 80-foot tall freestanding lattice frame Valmont-type construction on a 9.5-square foot concrete foundation. Tower D would be placed approximately nine feet from Tower B and connected through an above-ground conduit.

#### **2.2.5. Proposed ROW**

The proposed 20.1-acre ROW would contain the existing towers A and B, the existing access road, proposed towers C and D, the powerline, and the construction/emergency maintenance road. Considered separately, the existing access road and towers would require a 2.9-acre ROW while the proposed facilities would require a 17.3-acre ROW with 0.1 acres of overlap between the two.

#### **2.2.6. Construction, Operation, and Maintenance**

The facilities would be built in accordance with county, state, and federal requirements as applicable. No conflicts with other regional telecommunication or radio towers are anticipated.

Construction of the facilities would be performed by Barrick personnel or contractors. Staging would be done within a 50-foot diameter circle around the towers and/or powerline poles. Construction personnel would follow Barrick safety protocols.

Operation of the facilities would be conducted by a third party operator while general maintenance of the site and access road would be conducted in cooperation with Barrick personnel.

Access to the site via road is only possible from within the BMM NOA project area; as access to that part of the mine area is already restricted, public access to the communication site would be restricted by location. If the proposed project is authorized, BLM would contact Barrick for access to the communication site area during future compliance visits. The site would be accessible to Barrick personnel and contractors for most of the year, with access limitation depending on seasonal snow and mud.

#### **2.2.7. Project Schedule**

The facilities proposed under the Proposed Action would remain in place until the closure of BMM is complete and Barrick determines that on-site communications are no longer needed. At that time, reclamation of the site would commence as part of the overall BMM reclamation activities. Reclamation monitoring would be conducted for a minimum of three years for each reclaimed area and until revegetation objectives are met.

#### **2.2.8. Design Features (Applicant-Committed Environmental Protection Measures)**

Design features (applicant-committed environmental protection measures) have been developed for the BMM project as a way of minimizing or avoiding environmental impacts. The design features as would be applied to the Little Bald Mountain communication site are discussed in the following sections.

##### **Air Quality**

Air emissions would continue to be controlled in accordance with the air quality operating permits for the BMM project and with present best management practices (BMPs). For example, dust control would be provided for roads through water or chemical application as needed. The proposed propane generator would be permitted or added to the BMM air quality permit, as necessary.

##### **Stormwater**

BMPs would be used to limit erosion and sediment transport from proposed facilities and disturbed areas during construction and operation, in accordance with the Nevada General Stormwater Permit. Management practices may include, but would not be limited to, diversions and routing of stormwater away from development using accepted engineering practices, such as diversion ditches, sediment traps, and rock and gravel covers. Following construction activities reclamation would be conducted to accelerate stabilization of disturbed areas which would not be used.

##### **Wildlife**

Land clearing and surface disturbance would be timed to prevent destruction of active bird nests or young of birds during the avian breeding season (April 15 to July 15 annually or in accordance with the most recent Ely District policies) to comply with the Migratory Bird Treaty Act (MBTA). If surface disturbing activities are unavoidable during this breeding season, Barrick would have a qualified biologist survey areas proposed for disturbance for the presence of active nests within one week prior to disturbance.



If active nests are located, or if other compelling evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), the area would be avoided or buffer zones established to prevent destruction or disturbance of nests until the birds are no longer present. Avian surveys are proposed to be conducted only during the avian breeding season and within one week prior to Barrick conducting activities that result in disturbance. After such surveys are performed and the related disturbance created (i.e., road construction and drill pad development), Barrick would not conduct any additional disturbance during the avian breeding season without first conducting another avian survey. After July 15, no further avian surveys would be required until the next year.

Barrick would continue to consult with NDOW to ensure reasonable measures are taken to mitigate or avoid impacts to other species. Reclamation activities would consider the needs of wildlife (e.g., placement of rock piles or other cover for rodents or perching raptors) and include native seed species or other species recommended by NDOW and approved by the BLM. Past mitigation or habitat enhancement efforts have included the funding of pinion-juniper encroachment abatement, girdling trees for nesting habitat, reseeding of area burns, and completion of wildlife-specific projects such as wildlife water sources.

Powerline poles would be fitted with BLM-approved anti-perching devices and would be constructed to industry standards to inhibit avian electrocutions and the potential for increased predation on sage grouse.

Bald and golden eagles are protected under the *Bald and Golden Eagle Protection Act* (Act) (16 USC 668-688d). The Act prohibits the taking or possession of and commerce in bald and golden eagles, parts, feathers, nests, or eggs with limited exceptions. The definition of "take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available:

- Injury to an eagle;
- A decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or
- Nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior.

Barrick's existing and proposed construction, operation, and reclamation procedures inherently incorporate measures to protect eagles. Surveys are conducted prior to ground disturbance in the breeding and nesting seasons to determine the presence or absence of eagles as well as other migratory avian species protected under the MBTA. If nesting or brooding eagles are determined to be present, Barrick would avoid the area using a buffer zone developed in coordination with BLM, NDOW, and/or U.S. Fish and Wildlife Service (FWS) biologists.

Ground disturbance is and would continue to be minimized where possible to retain foraging habitat and to maintain production by not interfering with normal breeding, feeding, or sheltering. Growth media is and would continue to be salvaged and stockpiled for future reclamation to restore the disturbed areas to the pre-mining land uses. At the end of operations, the site would be closed and reclaimed according to a plan approved by the BLM and the Nevada Division of Environmental Protection (NDEP). The closure and reclamation plans are designed to return the disturbed areas to their pre-mining land uses. Where possible, reclamation would be

performed concurrently to reduce the duration of disturbance and accelerate the return to the pre-mining land uses including wildlife use with a concomitant return of the eagles' prey base.

In order to prevent an illegal take or disturbance of bald or golden eagles, Barrick would utilize the following measures:

- Where possible, protect and preserve potential roost and nest sites by retaining mature trees particularly within one-half mile from water;
- Noxious and invasive weed control would not be conducted within 0.5 mile of nesting and brood-rearing areas during the nesting and brooding season. Whenever possible, hand spraying herbicides would be the preferred method;
- Where eagles are likely to nest in human-made structures such as cell phone towers, and such use could impede the operation and maintenance of the structures or jeopardize the safety of eagles, the structures would be equipped with either devices engineered to discourage eagles from nest-building, or construct nesting platforms that would safely accommodate eagle nests without interfering with structure performance;
- Employ industry-accepted best management practices to prevent eagles from colliding with or being electrocuted by utility lines, towers, and poles;
- To avoid collisions, site communications towers and high voltage transmission lines would be located away from nests, foraging areas, and communal roost sites;
- Speed limits would be maintained to reduce vehicle/eagle collisions; and
- During annual training, Barrick would remind employees of their individual and Barrick's responsibilities toward protecting eagles.

### **Cultural Resources**

Avoidance is the Barrick-preferred treatment for preventing effects to historic properties [a historic property is any prehistoric or historic site eligible for the National Register of Historic Places (NRHP)] or unevaluated cultural resources. If avoidance is not possible or is not adequate to prevent adverse effects, Barrick would undertake data recovery at the affected sites as a mitigation measure, described further under Section 3.3.2.

### **Reclamation**

The post-mining land use for the area disturbed by the expansion is expected to be similar to the pre-mining land uses. The uses include mineral exploration, mining, livestock grazing, wildlife habitat, and recreation. Reclamation would be in conformance with the BLM and Nevada state reclamation regulations. Concurrent reclamation would occur where safe and practical. Experience from past reclamation efforts would be considered for designing reclamation of the proposed disturbance. Chapter 3 of the *2010 North Operations Area Amendment* (BMM 2010) describes the BMM reclamation plan in detail; similar reclamation activities would be conducted for the LBM communication site.

Growth media would be salvaged for use in reclamation where available. Reclaimed surfaces would be revegetated to reduce runoff and erosion, provide forage for wildlife and livestock, control invasive weeds, and reduce visual impacts. Seed would be applied with either a rangeland drill, hydroseeder, or a mechanical broadcaster and harrow, depending upon accessibility.

Roads would generally be recontoured or regraded to approximate to the original topography when no longer needed. Reclamation of roads in very steep terrain may not allow original topography to be attained. In this case, the cross-section would be blended to ensure no slopes steeper than 2.5H:1V occur except where cut banks are on the inside of the road and located generally in bedrock. Those cuts in bedrock may remain as long-term features similar to a cliff or rock outcrop. Where the road is located on fill, the side slopes would be rounded and regraded to 3H:1V. Compacted road surfaces would then be ripped, covered with growth media and revegetated.

As determined by the BLM, roads on public lands suitable for public access or which continue to provide public access consistent with pre-mining conditions would not be reclaimed at mine closure.

During final mine closure, structures would be dismantled and materials salvaged or removed to the site landfill or other appropriate disposal site. Concrete foundations and slabs would be broken up using a track-hoe mounted hydraulic hammer or similar methods and buried in place under approximately three feet of material in such a manner to prevent ponding and to allow vegetation growth. After demolition and salvage operations are complete, the disturbed areas would be covered with growth media and revegetated.

### **Invasive, Non-native Species**

Barrick would work with the BLM and the Tri-County Weed District to prevent the spread of invasive, non-native species in the affected area. Barrick also works in cooperation with the Newark Valley/Long Valley Cooperative Weed Management Group. The ongoing weed control program would continue in the area of proposed activity. Employees and contractors would be educated to identify weeds that could occur in the area disturbed. Should invasive weeds be identified, Barrick would take appropriate measures to prevent their spread. A Weed Risk Assessment was conducted for the MB LBM EA resulting in a risk rating of 35 (moderate). This risk rating is also applicable to the Proposed Action.

Barrick would follow best management practices in order to prevent the spread of invasive weeds in the areas of the proposed activities. Best management practices include the following:

- Following the BLM best management practices included in Appendix G of the *2010 North Operations Area Amendment* (BMM 2010) presents the *Noxious Weed Control Plan*;
- Surveying the proposed disturbance area prior to construction to determine if invasive weeds already exist;
- Flagging areas of concern to prevent employees from driving through a stand of listed noxious weeds;
- Training employees and contractors to identify noxious weeds;
- Segregating growth media that may contain noxious weed seeds away from growth media not containing noxious weed seeds;
- Seeding growth media stockpiles as soon as practical with an interim seed mix;
- Using certified weed-free hay and straw;
- Using a BLM-recommended seed mix to reduce invasive species over time by developing and maintaining desired plant communities; and

- Washing down construction equipment in accordance with the BLM standard operating procedures to prevent the transfer of noxious and undesirable weed seed from other areas.

### **Fire Management**

Barrick would comply with applicable federal and state fire laws and regulations and would take reasonable measures to prevent and suppress fires in the area of operations.

### **Chemical Reagent Requirements and Hazardous Materials Management**

Diesel fuel (#1 and #2), grease, petroleum oil, propane and solvents may be utilized as part of the proposed activities primarily in conjunction with equipment operation. Approved staging facilities, safety measures, transportation, and handling requirements are already in use for the BMM and would continue to be utilized for the communications site. Construction, operation, and maintenance activities would comply with applicable federal, state, and local laws and regulations regarding the use of hazardous substances and the protection of air and water quality.

## **2.3. No Action Alternative**

Under the No Action Alternative the existing facilities would not be authorized and would be removed from public land, and the proposed towers, powerline, and construction/emergency maintenance road would not be permitted or constructed. Communications within the BMM would remain inconsistent.

## **2.4. Alternatives Considered, but Eliminated from Further Analysis**

Barrick had considered not installing the powerline and relying only on the propane generator and proposed wind turbine for power. Under this option, power to the site would be unreliable during the winter season due to snow and a lack of access to the site. Furthermore, Microwave Tower D requires a higher voltage power source as supplied under the Proposed Action by the powerline. This option was eliminated from further analysis since it would not adequately meet the needs of the proponent.



### 3. AFFECTED ENVIRONMENT/ENVIRONMENTAL EFFECTS

#### 3.1. Introduction

This section presents the existing environment (i.e., the physical, biological, social, and economic values and resources) of the Plan area, issues analyzed, potential impacts to the analyzed resources resulting from the Proposed Action, and mitigation that could be applied which would reduce those potential impacts. Mitigation proposed in this section could be included in the FONSI to prevent potentially significant impacts. Application of the mitigation measures to the Proposed Action would then be carried forward into the Decision Record as a condition of approval of the proposal.

Potential impacts to the following resources/concerns were evaluated in accordance with criteria listed in the BLM NEPA Handbook (H-1790-1) to determine if detailed analysis was required. Consideration of some of these items is to ensure compliance with laws, statutes, or executive orders that impose certain requirements upon all federal actions. Other items are relevant to the management of public lands in general, and to the Ely District BLM in particular.

Many times a project would have some degree of effect upon a resource or concern, but that effect doesn't approach any threshold of significance, nor does it increase cumulative impacts by a measureable increment. Such effects are described in the rationale for dismissal from analysis. Table 3.1 documents the issues evaluation or rationale for dismissal from or inclusion in analysis.

**Table 3.1: Rational for Inclusion or Dismissal of Resources or Concerns**

Resource/Concern	Issues Analyzed? (Y/N)	Rationale for Dismissal from Analysis or Issues Requiring Detailed Analysis
Air Quality*	Y	Short-term, temporary increase of particulates and equipment emissions during construction, operations, and reclamation.
Area of Critical Environmental Concern (ACEC)*	N	Not present
Cultural Resources*	Y	Three cultural sites have been located within the proposed Plan area. None of these sites were determined to be eligible for listing under the NRHP. Undiscovered sites could be encountered.
Forest Health*	N	No unique woodlands or sensitive tree species are present within the Plan area.
Rangeland Health*, Grazing and Forage Resources	N	The Proposed Action would remove approximately 20.1 acres from active grazing use. This change would not appreciably affect the overall grazing operation relative to the Warm Springs Grazing Allotment.

Resource/Concern	Issues Analyzed? (Y/N)	Rationale for Dismissal from Analysis or Issues Requiring Detailed Analysis
Migratory Birds*	Y	Migratory birds would be present. The Proposed Action may result in loss of migratory bird habitat.
Native American Religious and other Concerns*	N	Consultation with Native American tribes was undertaken and no issues or concerns were identified.
FWS listed or proposed for listing threatened or endangered species or critical habitat*	N	No listed species are currently known to occur in the Plan area.
Wastes, Hazardous or Solid*	Y	Hazardous and solid wastes would be generated.
Water Quality, Surface/Ground*	Y	Land disturbance could affect downgradient ephemeral surface waters.
Environmental Justice*	N	No minority or low income populations would be affected by health or environmental effects of the Proposed Action.
Floodplains*	N	Not present
Prime and unique farmlands*	N	Not present
Wetlands/Riparian Zones*	N	Not present
Non-native Invasive and Noxious Species*	N	Non-native invasive species and noxious weeds are present in the Plan area. Design features would prevent the spread of noxious weeds.
Special status animal species, other than those listed or proposed by the FWS as threatened or endangered.	Y	Special status animal species and/or their potential habitat are known to occur in the vicinity of the Plan area. The Proposed Action may result in a loss of special status species habitat or disturbance to these species.
Special status plant species, other than those listed or proposed by the FWS as threatened or endangered.	N	No special status plant species are known to occur in the vicinity of the Plan area.
Wilderness/WSA*	N	Not present

Resource/Concern	Issues Analyzed? (Y/N)	Rationale for Dismissal from Analysis or Issues Requiring Detailed Analysis
Lands with Wilderness Character	N	In 1979 Intensive Inventory unit NV-040-024 was inventoried for wilderness characteristics for the American Selco Gold and Spencer Barite Operations project, and the unit was identified as not having wilderness character. The conclusion from the original intensive inventory was verified in March of 2011 by the Ely District Wilderness Planner, Dave Jacobson who concurs with the original conclusion for unit NV-040-024.
Wild Horses	N	The majority of the BMM NOA project area has already been segregated from surrounding HMAs under surface use plans.
Fish and Wildlife	Y	No aquatic species are present; however, wildlife species are present. The Proposed Action may result in a loss of wildlife habitat or disturbance of wildlife.
Soils Resources	Y	There is the potential for topsoil change or loss due to land disturbing activities.
Visual Resources Management	Y	Proposed activities occur within the VRM Class III area. The Proposed Action may result in a change to visual characteristics.
Lands and Realty	N	A ROW would be established on BLM-administered lands. No existing ROWs would be affected by the Proposed Action.
Recreation	N	Plan area is not currently accessible to recreationalists.
Paleontological Resources	N	Not present
Human Health and Safety*	N	Access to the area is already restricted by the presence of the BMM NOA project area.
Water Resources (Water Rights)	N	No changes to existing water rights would occur.
Mineral Resources	N	No change to mineral resources would occur.
Vegetative Resources	N	Vegetation would be temporarily disturbed and/or removed. Design features provide for reclamation.

\*Nevada Supplemental Authority

## **3.2. General Setting**

The Plan area, as defined by the proposed Plan boundary, is located in the southern Ruby Mountain area and south of Ruby Valley. Elevations within the Plan area range from approximately 8,000 feet to 9,100 feet above mean sea level (amsl). The topography in the area is typical of that found in the Basin and Range Physiographic Province of the western United States.

Four vegetation community types were identified in the vicinity of the Plan area: pinyon-juniper woodland; big sagebrush; low sagebrush; and mountain brush. Mountain brush and low sagebrush are the vegetation types most prominent within the Plan area.

## **3.3. Resources/Concerns Analyzed**

The following sections discuss the resources/concerns analyzed including a discussion of the affected environment and potential impacts of the Proposed Action and the No Action Alternative.

### **3.3.1. Air Quality**

Chapter 3.14 of the FEIS describes air quality in general.

#### **Affected Environment**

The Plan area is located within portions of two airsheds which follow the boundaries of the following hydrographic basins as shown on Figure 4, Ruby Valley and Newark Valley. The area is currently "unclassifiable" for all criteria air pollutants. Existing mining activity is included as part of the affected environment. The BMM is currently operating as a Class I source.

#### **Impact Analysis**

##### ***Proposed Action***

Approximately 2.9 acres have been disturbed within the 20.1-acre Plan area. Up to 1.3 additional acres would be disturbed under the Proposed Action, equaling a Plan area disturbance of approximately 21 percent or an increase of approximately seven percent above the previously existing disturbance areas. This additional land disturbance would contribute to increased dust emissions and temporary increased vehicle emissions related to construction, operations, and reclamation. Increased dust emissions from disturbed lands would continue until successful reclamation and revegetation is achieved. Impacts to air quality would be transitory and temporary, limited in duration, and would essentially end at the completion of the reclamation phase of the project.

Use of the propane generator would also increase combustion-related air emissions when in use. Barrick would operate the propane generator as a temporary source until more reliable power can be installed. As stated in Section 2.2.4 above, permitting of the generator will be completed if necessary.

As described in Section 2.2.8 air emissions, including point and dust sources, would be controlled in accordance with present best management practices.

### ***No Action Alternative***

Under the No Action Alternative no additional impacts to air quality would occur beyond those already authorized.

### **3.3.2. Cultural Resources**

Chapter 3.19 of the FEIS and Chapter 3.2.2 of the LBM EA describe cultural resources in general.

### **Affected Environment**

A Class III cultural resource inventory has been conducted within the Plan area as required by the Programmatic Agreement that outlines BLM's procedures under Section 106 of the National Historic Preservation Act in the Bald Mountain Mining District. The Class III inventory of cultural resources and the subsequent determination of their eligibility for the NRHP was conducted in accordance with the procedures outlined by the Programmatic Agreement signed in 1995 and the Protocol Agreement between BLM and SHPO signed in 2009.

A total of three newly discovered archaeological sites were observed during the cultural resource inventory carried out during the summer of 2011. These sites are historic and related to mining and mineral exploration activities in the BMM mining district as summarized in *A Class III Cultural Resource Survey of a Proposed Access Corridor on Little Bald Mountain, White Pine County, Nevada, BLM Report No. 8111 NV040-11-1939 (P)* (Kautz 2011).

### **Impact Analysis**

### ***Proposed Action***

None of the affected sites were found to meet the NRHP criteria for significance (36 CFR 60.4), and have been determined not eligible for nomination to the NRHP by the BLM.

As described in Section 2.2.8, avoidance is the Barrick-preferred treatment for preventing effects to historic properties or unevaluated cultural resources. If an unevaluated site is found, and if avoidance is not possible or is not adequate to prevent adverse effects, Barrick would undertake data recovery at the affected sites as a mitigation measure. Development of a treatment plan, data recovery, archeological documentation, and report preparation would be based on the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*, 48 CFR 44716 (September 29, 1983), as amended or replaced. If an unevaluated site cannot be avoided, additional information would be gathered and the site would be evaluated. If the site does not meet eligibility criteria as defined by 36 CFR 60.4 no further cultural work would be performed. If the site meets eligibility criteria, a data recovery plan or appropriate mitigation would be completed under the Programmatic Agreement. Once data recovery has been completed at a historic property, the BLM would issue a Notice to Proceed for work at that location.

### ***No Action Alternative***

Under the No Action Alternative, impacts to cultural resources would not occur.

### **3.3.3. Migratory Birds**

Chapter 3.8.3 of the FEIS and Chapter 3.2.10 of the LBM EA describe migratory birds that may occur within the Plan area in general.

## Affected Environment

Migratory bird species are defined and protected by the MBTA of 1918. This act prohibits killing or taking migratory bird species. Protection under the Act extends to nesting birds, their eggs, and occupied nests.

Avian species composition and density in the area varies with season and habitat type. Avian species diversity is highest during the spring and summer months, when migrant species are nesting in the area. Species diversity decreases markedly during the fall and winter seasons, when many nesting species move south, out of the area. More common species include northern flickers (*Colaptes auratus*), mountain chickadees (*Poecile gambeli*), house wrens (*Troglodytes aedon*), sage thrashers (*Oreoscoptes montanus*), and Brewer's sparrows (*Spizella breweri*). Most of these species migrate out of the area before the onset of winter, though a few, including northern flickers as well as horned larks (*Eremophila alpestris*), black-billed magpies (*Pica hudsonia*), and bushtits (*Psaltiriparus minimus*), may remain in the area year-round. Migrant species recorded during surveys include broad-tailed hummingbirds (*Selasphorus platycercus*), western wood-pewees (*Contopus sordidulus*), mountain bluebirds (*Sialia mexicana*), green-tailed towhees (*Pipilo chlorurus*), and sage sparrows (*Amphispiza belli*).

## Impact Analysis

### Proposed Action

The Proposed Action would result in impacts to and conversion of potential nesting habitat, incrementally reducing the area available for nesting. A temporary loss of approximately 1.3 additional acres of habitat is anticipated under the Proposed Action, equaling an increase of approximately seven percent above the previously existing disturbance areas.

The disturbance area acres would be reclaimed at or during the closure of mining operations. Reclamation would be designed to establish a productive post-mining environment that would support wildlife and grazing. As stated in the BLM's *Nevada Migratory Bird Best Management Practices for the Sagebrush Biome* (BLM 2003), "conversion of a juniper habitat type to a sagebrush habitat type would adversely affect gray flycatchers, juniper titmice, Bewick's wrens, blue-gray gnatcatchers, and black-throated gray warblers, but it would favor greater sage grouse, Brewer's sparrows, sage sparrows, sage thrashers, vesper sparrows, burrowing owls and loggerhead shrikes."

Indirect effects that could result from implementation of the Proposed Action include displacement of migratory birds into adjacent habitats. As is the case with other wildlife, such a change in utilization could result in increased competition for limited resources. As the proposed disturbance areas are quite narrow, it is not anticipated that this indirect effect would be noticeable.

Tower C would be fitted with a horizontally rotating wind turbine (see Appendix B for a description). There is potential for birds to come into contact with the moving blades resulting in injury or death. Due to the small size of the wind turbine, measuring 3.6 meters in width across the blades, bird mortality is not expected to be a common occurrence.

### No Action Alternative

Under this alternative the proposed developments would not occur and Towers A and B would be removed from public land.



### **3.3.4. Wastes, Hazardous or Solid Affected Environment**

The affected environment for hazardous materials and solid and hazardous waste includes air, water, soil, and biological resources that could be potentially affected by an accidental release during transportation to and from the Plan area and during storage and use on the Plan area.

Wastes associated with the Proposed Action would be those associated with maintenance and construction equipment and would be managed according to the *Spill Contingency Plan* located in the *2010 North Operations Area Amendment* (BMM 2010). The propane for the generator would be stored in a 1,000 gallon skid-mounted tank next to Tower B. The tank and generator would be placed so as to protect them from vehicles.

Non-hazardous, solid waste is currently managed on-site in a Class III waived landfill within the BMM NOA project area. This facility is constructed and managed in accordance with applicable state regulatory requirements. Any non-hazardous or solid wastes created during the construction or maintenance of these facilities would be disposed of here or shipped offsite to an approved disposal location.

### **Impact Analysis**

#### ***Proposed Action***

The Proposed Action includes the permitting of propane storage and usage at the communication site. It does not involve a change in other hazardous materials use or hazardous waste creation with the exception of small amounts which may be created incidentally during the construction or maintenance of the site in association with equipment usage.

Barrick would notify the BLM Authorized Officer of any hazardous or solid waste discoveries within the Plan area that are not authorized. Barrick would also notify the BLM Authorized Officer of any hazardous or solid wastes spills that occur within the Plan area. The Plan area would be maintained in a sanitary condition at all times; solid waste and litter would be disposed of promptly at the authorized Class III landfill.

If a spill of fuel occurs, the petroleum contaminated soils (PCS) would be transferred to an on-site holding pad in the BMM NOA project area for provisional, short-term placement screening to determine suitability for treatment, on-site disposal, or off-site disposal.

#### ***No Action Alternative***

Under this alternative the Proposed Action would not be approved and the proposed facilities would not be constructed. The propane generator would not be used so storage of fuel within the Plan area would not be necessary. The existing facilities would be removed from public land.

### **3.3.5. Water Resources, Surface and Ground**

Chapter 3.2 of the FEIS describes water quality in general.

### **Affected Environment**

#### ***Surface Water***

The Plan area is located within two hydrographic basins as shown on Figure 4, Ruby Valley and Newark Valley. Surface water within the Plan area consists primarily of ephemeral drainages. No springs or surface water bodies are located within the Plan area.

### ***Groundwater***

The groundwater system in the area consists of two primary components: a deep regional bedrock-hosted system with groundwater present in fractures and in localized perched water within clay layers and a sediment-based system comprising valley-fill alluvial material.

The potentiometric surface in the bedrock aquifer in and around the Plan area is at around 7,900 feet amsl. Recharge is predominantly from precipitation at higher elevations. Recharge to the fault-controlled bedrock aquifer system is by infiltration of precipitation and snowmelt. After infiltration, groundwater flows along faults and fractures through the bedrock system toward the alluvial aquifers within the valleys that lie below the mountain ranges. Recharge to the alluvial aquifer system is also by infiltration of precipitation, snowmelt, and runoff, and it also includes contribution from the fault-controlled bedrock aquifer system.

### **Impact Analysis**

#### ***Proposed Action***

Best management practices would be used to control erosion and sediment transport from disturbed areas during construction and operation, in accordance with the Nevada General Stormwater Permit NVR300000 as described in Section 2.2.8. Indirect incremental impacts related to land disturbance and surface water quality would be negligible. Direct or indirect impacts to either groundwater quality or groundwater quantity are not anticipated. Water which may be used to water roads during construction would come from the BMM road maintenance water trucks and would be negligible.

#### ***No Action Alternative***

The impacts to surface and groundwater quantity and quality would not occur under the No Action Alternative except for those impacts which may already have occurred from the existing facilities.

#### **3.3.6. Special Status Animal Species, other than those Listed or Proposed by the Fish and Wildlife Service as Threatened or Endangered**

Chapter 3.8.5 of the FEIS and Chapter 3.2.5 of the LBM EA describe special status wildlife species in general.

#### **Affected Environment**

Nevada state-protected wildlife species include a number of bats and most diurnal and nocturnal raptors (hawks and owls). In addition to Nevada state-protected species, the BLM maintains a list of sensitive species. The BLM affords these species the same level of protection as federal candidate species had formerly. The BLM's policy for sensitive species is to avoid authorizing actions that would contribute to the listing of a species as threatened or endangered.

Appendix D.1 lists state-protected and BLM sensitive mammal and reptile species which may occur within the Plan area. State-protected and BLM sensitive species of birds which may occur in the Plan area are listed in Appendix D.2. Species and their habitats are discussed in more detail in the FEIS and the LBM EA. Only those species known to be potentially affected by the Proposed Action are discussed below.

Two myotis species, the western small-footed myotis (*Myotis ciliolabrum*), and a single long-eared myotis (*Myotis evotis*) were found hibernating in the underground workings of the BMM NOA project area in 2006 as discussed in the FEIS. Initial surveys conducted during February of 2006 documented low use during the hibernation season. Although bat roosting sites were not identified within the Plan area, trees in the area may serve as roosting sites and bats may forage within the Plan area.

The Plan area is located on greater sage grouse (*Centrocercus urophasianus*) nesting habitat as shown on Figure 5. The closest sage grouse leks are located several miles from the Plan area, in southern Ruby Valley to the north, in Long Valley to the southeast, and below the mouth of Bourne Canyon.

No nesting loggerhead shrikes (*Lanius ludovicianus*) were found in the Nevada Breeding Birds Atlas Block located just south of the Plan area, and no evidence of nesting was recorded during the baseline surveys. However, loggerhead shrike nesting and foraging habitat are present in the Plan area (Miller, 2011).

Pinyon jays (*Gymnorhinus cyanocephalus*) were recorded in the area of the Galaxy Pit in 1994 and would be expected to utilize pinyon-juniper habitats in the area.

Juniper titmice (*Baeolophus griseus*) were recorded in the area of the Horseshoe, Saga, and Galaxy pits in 1994 and would also be expected to utilize pinyon-juniper habitats in the area.

Raptor species that are known to be successful nesters within the BMM NOA project area include golden eagle (*Aquila Chrysaetos*), and Cooper's hawk (*Accipiter cooperii*). Turkey vulture (*Cathartes aura*) and prairie falcon (*Falco mexicanus*) nests have been observed within a mile outside of the BMM NOA project area. No raptor nests have been observed within the Plan area.

Other species such as the ferruginous hawk (*Buteo regalis*), American kestrel (*Falco sparverius*) (sparrow hawk), northern harrier (*Circus cyaneus*) (marsh hawk), common nighthawk, (*Chordeiles minor*) and several of the owl species, may occur in the Plan area during the appropriate season.

## **Impact Analysis**

### ***Proposed Action***

Anticipated environmental impacts to state-protected and BLM sensitive species include loss of habitat and displacement from human disturbance. Approximately 1.3 acres of land would be disturbed under the Proposed Action, an addition of approximately seven percent above existing disturbance area in the Plan area.

The Proposed Action may impact potential bat foraging habitat and roosting habitat for tree-roosting bats. It would not affect habitat related to underground workings.

The Proposed Action would result in reductions in foraging habitat for diurnal raptors, owls, and turkey vultures. Successful reclamation would eventually reduce these impacts.

The towers would provide raptor perching sites. NDOW is concerned about the presence of tall structures near sage grouse leks. However, impacts to sage grouse leks are expected to be minimal, since no leks are known to be located within the Plan area. Approximately 1.3 acres of

sage grouse nesting habitat would be disturbed. This area is considered insignificant in comparison to the over four million acres of adjacent habitat as identified by NDOW.

Potential indirect effects to state-protected and BLM sensitive species that could result from implementation of the Proposed Action include displacement of wildlife, including bats and/or raptors, into adjacent habitats.

#### ***No Action Alternative***

Under this alternative, new land disturbance would not occur and impacts to wildlife would also not occur.

#### **3.3.7. Fish and Wildlife**

Chapter 3.8 of the FEIS describes fish and wildlife in general.

Wildlife species occurring in the Plan area include big game and non-game mammals, predatory species, game birds, migratory bird species, bats, reptiles, and amphibians. Federal, state, and BLM listed or sensitive species are discussed under Section 3.3.6.

#### **Affected Environment**

##### ***Big Game***

As described in the FEIS, mule deer (*Odocoileus hemionus*) are the most common big game species within or near the Plan area. NDOW estimates that a resident population of between 200 and 400 mule deer reside in the vicinity of the Plan area and occur in low densities in the Plan area. The scarcity of surface water in the Plan area is a limiting factor for summer resident mule deer populations. In addition to resident mule deer, the Plan area is located in a migration corridor utilized by the Area 10 Deer Herd. This herd occupies the Ruby and East Humboldt mountain ranges during the summer season and moves south with the onset of winter snowfall. The Plan area includes year-round mule deer habitat as shown on Figure 6. The Area 10 population accounts for approximately 20 percent of the state's mule deer population and showed an approximate six percent increase between 2009 and 2010 (NDOW 2010).

Approximately 100 antelope (*Antilocapra americana*) occur in the Buck Mountain and Bald Mountain areas, generally in the valley bottoms and on adjacent fans. NDOW notes that antelope frequent agricultural fields in Newark Valley, with smaller numbers occurring in surrounding valleys. Antelope may occur in low numbers within the Plan area although they prefer lower valley elevations.

Elk (*Cervus elaphus*) populations in and around the Plan area are very low, being controlled by depredation hunts to keep viable elk herds from being established due to agricultural practices in the area (NDOW 2010). The White Pine County Elk Management Plan indicates the 2005 elk population estimate for the White Pine County portion of hunt units 104, 108, and 121 was 140 animals.

##### ***Game Birds***

Game birds potentially occurring in the proposed Plan area include greater sage grouse (*Centrocercus urophasianus*), chukar (*Alectoris chukar*), gray (Hungarian) partridge (*Perdix perdix*), blue grouse (*Dendragapus obscurus*), and mourning doves (*Zenaida macroura*).

### ***Other Wildlife***

Other game and non-game mammals including mountain lions (*Felis concolor*), coyotes (*Canis latrans*), bobcats (*Felis rufus*), and badgers (*Taxidea taxus*) occur as the larger or more common predators in the area. Red fox (*Vulpes vulpes*), gray fox (*Urocyon cinereoargenteus*), and kit fox (*Vulpes macrotis*) may also occur in the area. Mammalian prey species present in the Proposed Action area include black-tailed jackrabbits (*Lepus californicus*), mountain cottontails (*Sylvilagus nuttallii*), and a variety of small rodents. White-tailed jackrabbits (*Lepus townsendii*) may occur at higher elevations in the Plan area. Porcupines (*Erythron dorsatum*) and woodrats (*Neotoma* sp.) are reported to utilize wooded habitats, and pikas (*Ochotona princeps*) may occur in higher-elevation rocky habitats.

According to NDOW's Wildlife Species List - South Ruby Allotment (Unit 104) (Appendix F of the FEIS), reptiles expected to occur in the area include the western fence lizard (*Sceloporus occidentalis*), sagebrush lizard (*Sceloporus graciosus*), desert horned lizard (*Phrynosoma platyrhinos*), gopher snake (*Pituophis melanoleucus*), and Great Basin rattlesnake (*Crotalus viridis lutosus*).

Because water sources are limited in the area, NDOW, with assistance from BMM, has installed two of four planned wildlife guzzlers in the southern Ruby Mountains. While designed for big game, these structures are utilized by a wide variety of wildlife species.

### **Impact Analysis**

#### ***Proposed Action***

Approximately 1.3 acres of disturbance would occur under the Proposed Action. Anticipated environmental impacts to wildlife resources include loss of habitat, potential injury and mortality from increased traffic, and human disturbance. Smaller and less mobile animals may suffer direct mortality during land-clearing activities.

Mountain brush habitat would be impacted by the Proposed Action and would no longer be available to the small number of deer that permanently reside in the Plan area. The mountain brush habitat is part of a mapped year-round mule deer habitat area encompassing approximately 29,800 acres. A loss of 1.3 acres, or less than one-tenth of a percent of the year-round habitat area, is expected to have a negligible impact on mule deer. The Proposed Action is expected to have little impact on antelope, which primarily utilize lower elevation habitats, or on elk, which move widely throughout the area.

#### ***No Action Alternative***

Under this alternative, developments under the Proposed Action would not occur and wildlife would not be impacted either directly or indirectly.

### **3.3.8. Soils Resources**

Chapter 3.5 of the FEIS describes soils in general.

#### **Affected Environment**

Based on a Natural Resource Conservation Service (NRCS) soil survey, three soil associations are present within the Plan area: the Wardbay-Hardol-Adobe; the Cavehill-Grink-Rock Outcrop; and the Segura-McIvey-Hutchley association. Of these, the Cavehill-Grink-Rock outcrop

association and the Wardbay-Hardol-Adobe association are located in areas of proposed disturbance.

Descriptive and interpretive data for each soil association was derived from the *Soil Survey of Western White Pine County, Nevada* (NRCS 1998). Soil varies in depth, quality, and quantity. In general, the soils are shallow loams with a high coarse fragment percentage throughout the soil profile and occur on moderately steep to steep slopes.

In the Plan area, mountain big sagebrush (*Artemisia tridentata vaseyana*) is more commonly found on Wardbay and Hardol soils. The Hutchley soil supports low sagebrush (*Artemisia arbuscula*), and the Adobe soil supports black sagebrush (*Artemisia nova*). The Grink soil type supports the mountain mahogany vegetation type associated with rock outcrops on summits and mountain side slopes. Idaho fescue (*Festuca idahoensis*) and bluebunch wheatgrass (*Pseudoroegneria spicata*) normally occur on McIvey soils and pinyon-juniper vegetation communities generally occur on Cavehill soils.

## Impact Analysis

### *Proposed Action*

Approximately 1.3 acres of disturbance to soils would occur with approval of the Proposed Action due to the construction of a road, a powerline, and the installation of communication towers. Soil disturbances would remove the O and A horizons where present, impede maturation of soil development, degrade soil structure, and hinder soil biological activity. Additionally, exposed soils would be susceptible to wind and water erosion; however, this impact would be reduced by adherence to soil erosion BMPs as described in Section 2.2.8. Disturbance of soils from wind and water would be temporary in nature, until vegetation is re-established on the site. Loss or the displacement of topsoil incurred in the meantime would be permanent.

### *No Action Alternative*

Only impacts associated with previously authorized activities are associated with the No Action Alternative. The existing soils would remain in their current condition (a mixture of disturbed and undisturbed).

### **3.3.9. Visual Resources**

Chapter 3.15 of the FEIS describes visual resource management in general and Chapter 3.3.12 of the MB LBM EA discusses a key observation point (KOP) applicable to the Proposed Action.

### **Affected Environment**

Visual resources are identified through the visual resource management (VRM) inventory. This inventory consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones. Based on these factors, BLM-administered lands are placed into four visual resource inventory classes: VRM Class I, II, III and IV. Class I and II are the most valued, Class III represents a moderate value, and Class IV is of the least value. VRM classes serve two purposes: (1) as an inventory tool that portrays the relative value of visual resources in the area, and (2) as a management tool that provides an objective for managing visual resources.

The proposed Plan area falls within a VRM Class III area. The surrounding landscape was described using KOP #1 from the MB LBM EA and contains vegetation consisting mostly of grey-green low sagebrush and mountain scrub. Past mining activity in the vicinity has created



areas of light tan disturbance. Two existing communication towers and adjacent buildings are located on the top of Little Bald Mountain which currently provide vertical, perpendicular, man-made linear features to the landscape within the Plan area.

The VRM Class III objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

## **Impact Analysis**

### ***Proposed Action***

Impacts to visual resources would result from the installation of additional communication towers as well as a powerline. Impacts would include weak to moderate changes in line, form, color, and texture resulting from the clearing of vegetation, earth moving activities, and powerline, road, and tower construction. The great majority of impacts would last until natural vegetation has re-established in disturbed areas which could take many years. Until then, line, form, color, and texture changes to the landscape would be apparent but would not dominate the view of the casual observer.

Residual impacts on visual resources could remain for several years following cessation of operations and reclamation until native vegetation is completely reestablished. Areas where reclamation is not complete or successful would continue to contrast with visual resources.

### ***No Action Alternative***

Under this alternative, the proposed powerline, road, and towers would not be installed and the existing facilities would be removed.

## **4. CUMULATIVE IMPACTS**

### **4.1. Introduction**

As required under NEPA and the regulations implementing NEPA, this section analyzes potential cumulative impacts from past, present, and reasonably foreseeable future actions combined with the Proposed Action. A cumulative impact is defined as “the impact which results from the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7).

This cumulative impacts section references Chapter 4 of the FEIS. As related to the Proposed Action, cumulative impacts are addressed for the following resources:

- Air quality;
- Cultural resources;
- Wildlife including migratory birds and special status species;
- Native American religions concerns;
- Wastes, hazardous and solid;
- Water resources, surface and ground;
- Soil resources; and
- Visual resources.

### **4.2. Past, Present, and Reasonably Foreseeable Future Actions**

The reasonably foreseeable time frame for the cumulative impact analysis is 25 years. The cumulative impact analysis as defined in the FEIS includes the following steps:

- Establish appropriate geographical areas for analysis by resource, termed the cumulative effects study area (CESA);
- Identify past, present, and reasonably foreseeable future actions relevant to the resources in the CESA; and
- Provide a cumulative impacts conclusion.

CESA boundaries for the various resources are shown in Figure 7.

#### **4.2.1. Interrelated Projects**

Interrelated projects as defined by the FEIS include activities that could interact with the Proposed Action in a manner that would result in cumulative impacts. Interrelated projects have been grouped as past, present, and reasonably foreseeable future actions. Natural processes have also been analyzed separately under this section. Each project is described in more detail in Chapter 4.1.2 of the FEIS with the exception of the Mooney Basin and Little Bald Mountain Expansion Project (BLM 2011).

Appendix E gives an overview of the past, present, and reasonably foreseeable future actions and the resources to which they contribute impacts. Appendix E also summarizes the disturbance areas for the interrelated past, present, and future foreseeable actions within each CESA area.

The CESA boundaries and disturbance calculations have been rounded to the nearest hundred acres, and the approximate percentage of each CESA which may be disturbed cumulatively has been calculated.

### **4.3. Cumulative Impact Analysis**

Only those resources analyzed as being impacted under the Proposed Action have been carried forward for analysis in this section. Specific interrelated projects potentially affecting each resource are outlined in Appendix E and are discussed in more detail in Chapter 4 of the FEIS.

#### **4.3.1. Air Quality**

The CESA for air quality encompasses four hydrographic basins: Huntington Valley, Newark Valley, Long Valley, and Ruby Valley as shown on Figure 7. Interrelated projects within the CESA involving land disturbance contribute to dust emissions affecting air quality. Only a few of the interrelated projects are currently contributing to air emissions through combustion. These projects include the existing operational mining projects in the area, exploration projects, and potential construction activities as described in the FEIS.

Fires are a natural process which has in the past and has the potential in the future to affect air quality within the CESA. Direct effects include emissions of smoke followed by the increased potential for fugitive dust from burned lands prior to vegetation recovery.

The Proposed Action would contribute to air emissions through the disturbance of an additional 1.3 acres of land and through emissions related to the occasional operation of the propane generator. Given that less than one percent of the CESA is expected to be disturbed by past, present, and reasonably foreseeable future actions, and the low density of industrial operations in the area, the Proposed Action's incremental impacts to air quality within the CESA would be considered negligible.

#### **4.3.2. Cultural Resources**

The CESA for cultural resources has been created from maps that describe the overall territories occupied by both prehistoric and historic populations. This area encompasses approximately 775,000 acres as shown on Figure 7 and was determined to be the cultural resources CESA as described in Chapter 4.18 of the FEIS.

Interrelated projects involving land disturbance have the potential to affect cultural resources within the CESA. All federally sanctioned undertakings are guided by law to mitigate the effects of projects on cultural resources. The FEIS describes the modeled density of archaeological sites within the CESA. Approximately one percent of the CESA has determined to be disturbed by past, present, and reasonably foreseeable future actions.

The Proposed Action would disturb approximately 1.3 acres, adding incrementally to potential effects on cultural resources. Given this relatively small area within the CESA, and that cultural resource protection laws would be adhered to, the Proposed Action's contribution to cumulative impacts to cultural resources within the CESA would be negligible.

#### **4.3.3. Wildlife including Migratory Birds and Special Status Species**

The CESA for wildlife encompasses approximately 1,795,000 acres of NDOW Big Game Hunt units 102, 103, and 108 of Management Area 10 as shown on Figure 7. These areas include a variety of mule deer and sage grouse habitats as well as habitat for elk.

Projects with associated land use disturbance within the CESA would have an impact on wildlife resources through the loss of habitat. Less than one percent of the CESA is determined to be disturbed due to past, present, and reasonably foreseeable future actions. Additionally, wildfires have affected less than one percent of the CESA over the past nine years. Most of the interrelated actions within the CESA have land use disturbances occurring within the lower habitat types, mainly within a mix of sagebrush and pinyon-juniper vegetation types.

Habitat improvement projects have occurred within the CESA, most of which involved chaining or cabling with a focus on mule deer habitat creation. Projects focused around Overland Pass, located to north of the Plan area and conducted during the 1960's and 1970's include: the Nacise chaining on the west side of Overland Pass; the Overland Pass cabling project; and the Cracker Johnson project located on the northwest side of Overland Pass. A controlled burn was also conducted in 2009 north of Overland Pass. A sage grouse-specific habitat improvement project for the area is currently under discussion but has not yet entered the analysis phase. Habitat improvement projects have also occurred in the Mooney Basin area primarily focused on mule deer. These projects include the Alligator Ridge chaining and the Mooney Basin chaining.

Many of the interrelated projects within the CESA involve reclamation activities; however, the post-reclamation habitat types would differ from the pre-disturbance habitat types for some time if not permanently. The presence of humans related to projects is also an indirect impact on wildlife.

As under the Proposed Action, many of the interrelated projects on public lands require pre-disturbance surveys during the avian breeding season so as not to disturb breeding and nesting migratory birds. Many of the interrelated projects are also required to follow the requirements of the *Bald and Golden Eagle Protection Act* (16 USC 668-688d). Direct impacts to eagles and migratory birds would be negligible.

The land disturbance and habitat loss under the Proposed Action is approximately 1.3 acres. In relation to the CESA area and land disturbance impacts from interrelated projects, the cumulative impacts to wildlife would be incremental as would impacts related to human/equipment presence and disturbance to wildlife.

#### **4.3.4. Wastes, Hazardous or Solid**

The CESA for hazardous and solid waste is the BMM NOA project area, the Plan area, and the major transportation routes to the area as shown on Figure 7.

Other mining and industrial projects in the vicinity of the mine may be receiving and shipping hazardous materials and waste and solid waste. Some of these sites may utilize the same transportation routes as the Proposed Action for all or part of the route. Reasonable foreseeable future actions may also contribute to increased traffic and shipments on these routes.

The Proposed Action involves the use of propane for the generator, and the storage of propane within the site. It may also involve small amounts of hazardous and solid waste related to construction and maintenance. These effects would contribute negligibly to the cumulative effects of hazardous and solid waste within the CESA.

#### **4.3.5. Water Resources**

The CESA for ground and surface water resources encompasses four hydrographic basins: Huntington Valley, Newark Valley, Long Valley, and Ruby Valley. The four basins cover

approximately 2,071,000 acres as shown on Figure 7. Drainage and groundwater flows within these basins are described in greater detail in Chapter 4.2.2 of the FEIS.

Potential cumulative impacts to surface water resources within the CESA could occur from mining operations and exploration activities, oil and gas exploration, fuel treatment projects, livestock grazing, and projects having direct surface disturbance. In general, projects within the CESA involving surface disturbance have the potential to impact surface water quality and quantity, primarily through increased sedimentation as a result of the removal of vegetation and disturbance to the soil structure. Impacts from actions identified within the CESA are anticipated to be limited to the life of each project and the localized nature of each project.

Potential cumulative effects to groundwater resources in the CESA could occur from mining operations and exploration activities, oil and gas exploration, and any other projects where the groundwater is intercepted, such as open pits, or where groundwater is accessed and utilized. Irrigation is currently ongoing in all four hydrographic basins, but primarily in Huntington Valley and Ruby Valley. As described in the FEIS, the major sources of recharge to the Ruby Lake National Wildlife Refuge are springs located directly to the west, fed from the Ruby Mountains; no measurable component of recharge to Ruby Valley occurs from the south.

Impacts to surface and groundwater resources from reasonably foreseeable future actions are not known at this time as many of these projects are still in planning phases and may or may not go forward for development. If other mining projects do move forward, groundwater usage would increase. Additional projects requiring the use of groundwater would likely occur in Long Valley and Newark Valley.

Due to the presence of only ephemeral surface water resources in the Plan area and the minimal impacts to surface water from the Proposed Action as described in Section 3.2.5, the Proposed Action would have a negligible impact on surface water quality and quantity within the CESA. Cumulative impacts to groundwater quantity and quality from the Proposed Action are anticipated to be incremental.

#### **4.3.6. Soil Resources**

The CESA for soil resources encompasses approximately 2,071,000 acres within the four hydrographic basins as shown on Figure 7: Ruby Valley; Long Valley; Newark Valley; and Huntington Valley. Approximately 370 soil associations occur within the CESA.

Ground disturbance can affect soil resources by removing soils from productive use and as a result of burial or excavation and storage, altering infiltration and erosion as a result of compaction, or changes in topography. Disturbed soils can increase both wind and water erosion and are more susceptible to establishment of non-native invasive species. Past wildland fire activities have impacted less than one percent of the CESA as described in the FEIS. Wildland fire and other natural disturbance processes can be expected to occur in the future.

Many of the past projects which have affected soil resources are in various stages of reclamation; present and reasonably foreseeable future project disturbances are also likely to be reclaimed in full or in part.

The Proposed Action would contribute to soil resource impacts through the disturbance of approximately 1.3 acres. Less than one percent of the CESA is determined to be disturbed by past, present, and reasonably foreseeable future actions. Given the relatively small disturbance

area and the likelihood that interrelated projects would involve reclamation, cumulative impacts from the Proposed Action to soils would be incremental.

#### **4.3.7. Visual Resources**

The CESA for visual resources encompasses approximately 317,000 acres of the south Ruby Mountains and portions of the Huntington Valley, Newark Valley, and Long Valley as shown on Figure 7. This area includes the majority of the viewpoints from which disturbance can be seen.

Sensitive receptors within the CESA include users of the Ruby Mountains and the Ruby Lake National Wildlife Refuge. The Pony Express Trail is included within a Class II visual resource management corridor to the north of the Plan area.

Past and present land-disturbing projects and activities within the CESA have resulted in visual impacts which can be seen by viewers within the CESA, including portions of the Pony Express Trail. Reasonably foreseeable future actions would also contribute to visual resource impacts through land clearing activities and facility construction. The effects of mining projects would last until successful reclamation is completed; however, visual impacts such as color and texture changes may remain much longer.

The Proposed Action includes the construction of a powerline, road and communication towers. These actions would occur within an immediate area which is already highly disturbed, and not easily visible from areas accessibly to the public, making the addition of these disturbances incremental within the CESA.



## 5. TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

### 5.1. Introduction

The issue identification section of Section 3 provides the rationale for issues that were considered but not analyzed further. It also identifies issues which were brought forward for analysis. The issues were identified through the public and agency involvement process described in sections 5.2 and 5.3 below.

### 5.2. Persons, Groups and Agencies Consulted

Other persons, groups, and agencies consulted in recent NEPA evaluations to which this EA is tiered are listed below:

Name	Purpose & Authority for Consultation or Coordination
Katie Miller	NDOW Wildlife Biologist
Steve Abele	USFWS Fish and Wildlife Biologist
Eric Miskow	NNHP Biologist/Data Manager

### 5.3. Summary of Public Participation

Letters informing about the Proposed Action were sent out to identified tribal members for consultation regarding Native American Religious Concerns. The letters were sent out by July 6, 2011 and responses were requested by August 5, 2011. The following Native American tribes were contacted:

- Shivwits Band of Paiutes
- Confederate Tribes of the Goshute Indian Reservation
- Wells Band Council
- Elko Band Council
- Indian Peaks Band
- Paiute Indian Tribe of Utah
- Cedar City Band of Paiutes
- Te-Moak Tribe of the Western Shoshone Indians of Nevada
- South Fork Band Council
- Battle Mountain Band Council
- Moapa Band of Paiutes
- Ely Shoshone Tribe
- Las Vegas Paiute Tribe
- Yomba Shoshone Tribe
- Skull Valley Band of Goshutes
- Duckwater Shoshone Tribe
- Kaibab Band of Paiute Indians

- Winnemucca Indian Colony of Nevada
- Lovelock Paiute Tribe

### 5.3.1. BLM Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Stephanie Trujillo	Realty Specialist	Lands and Realty
Erin Rajala	Outdoor Recreation Planner	Recreation, Visual Resources
Amanda Anderson	Rangeland Management Specialist	Rangeland Health
Ken Humphrey	Archaeologist	Cultural Resources
Marian Lichtler	Wildlife Biologist	Migratory Birds, Special Status Species, Fish and Wildlife
Mindy Seal	Natural Resource Specialist	Environmental-NEPA Compliance; Non-Native Species and Noxious Weeds; Vegetation
Elvis Wall	Native American Coordinator	Native American Religious and Other Concerns
Miles Kreidler	Minerals Specialist	Minerals
Mark D'Aversa	Hydrologist	Soil Resources, Water Resources, Wetland/Riparian

### 5.3.2. Non-BLM Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Brett Bingham	GIS Specialist	Figures
Val Sawyer	SRK Principal	Final Review QA/QC
Carrie Schultz	Environmental Consultant	All

## 6. REFERENCES AND ACRONYMS

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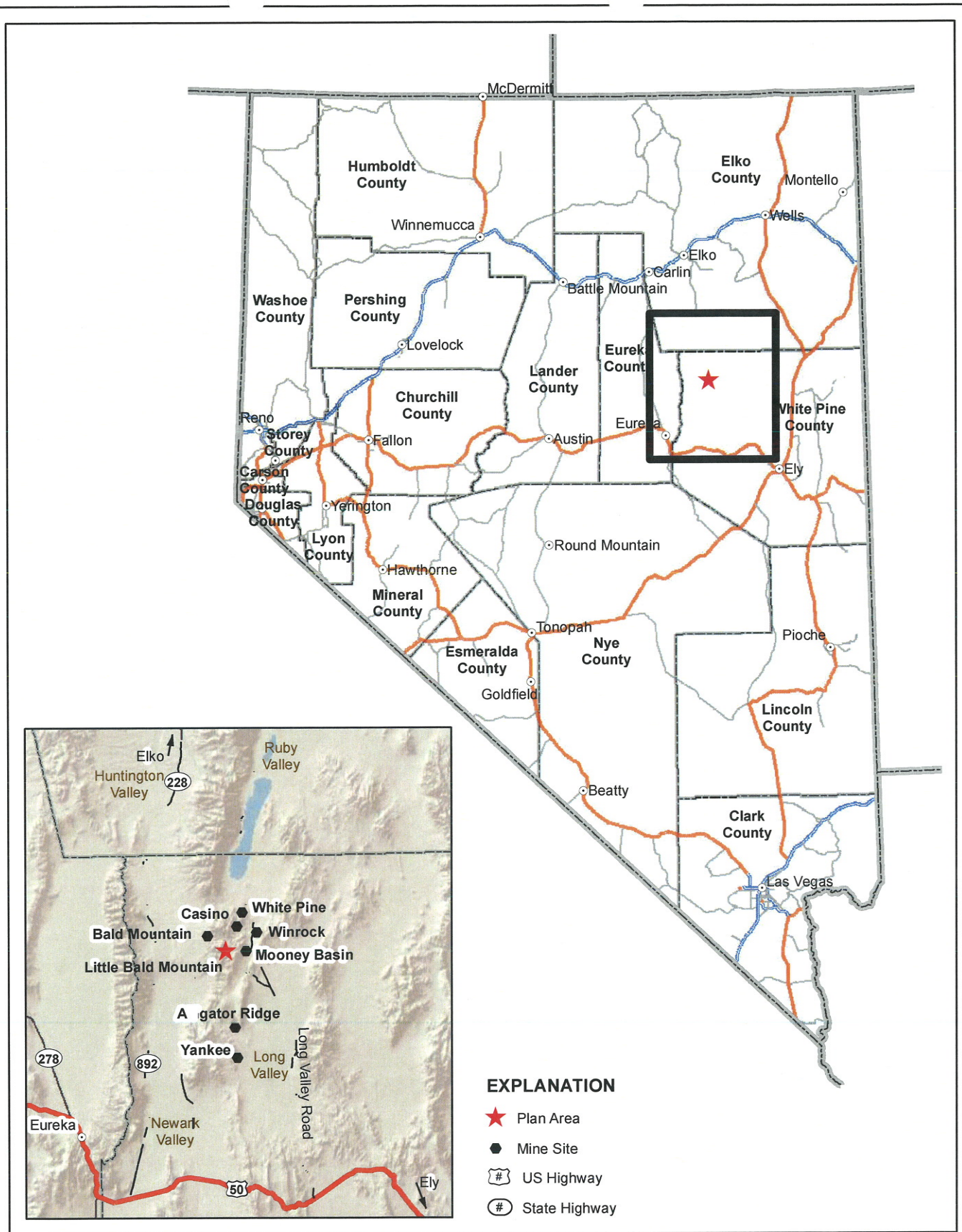
### 6.2. Acronyms

**ACEC** – Area of Critical Environmental Concern  
**BLM**-Bureau of Land Management  
**BMM** – Bald Mountain Mine  
**BMP** – Best Management Practice  
**CESA** – Cumulative Effects Study Area  
**CFR**-Code of Federal Regulations

**DR**-Decision Record  
**EA**-Environmental Assessment  
**EIS**-Environmental Impact Statement  
**FEIS**-Final Environmental Impact Statement  
**FLPMA**-Federal Land Policy and Management Act  
**FONSI**-Finding of No Significant Impact  
**FWS** – Fish and Wildlife Service  
**LBM** – Little Bald Mountain  
**MBTA** – Migratory Bird Treaty Act  
**NAD** – North American Datum  
**NDEP** – Nevada Division of Environmental Protection  
**NDOW** – Nevada Department of Wildlife  
**NEPA**-National Environmental Policy Act  
**NOA** – North Operation Area  
**NRCS** – Natural Resource Conservation Service  
**NRHP** – National Register of Historic Places  
**PCS** – Petroleum contaminated soil  
**RDA** – Rock Disposal Area  
**RMP**-Resource Management Plan  
**ROW** – rights-of-way  
**SHPO** – State Historic Preservation Office  
**SWPPP** - Stormwater Pollution Prevention Plan  
**VRM** – Visual Resource Management

## **Figures**

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N

NAD 27 STATE PLANE NEVADA EAST FEET

SCALE: Not to Scale



# **LITTLE BALD MOUNTAIN COMMUNICATION SITE ENVIRONMENTAL ASSESSMENT**


DRAWING TITLE:	
<b>LOCATION MAP</b>	
<b>EA - JULY 2011</b>	
DRAWING NO.	<b>FIGURE 1</b>
DATE:	<b>7/6/2011</b>
REVISION	<b>A</b>



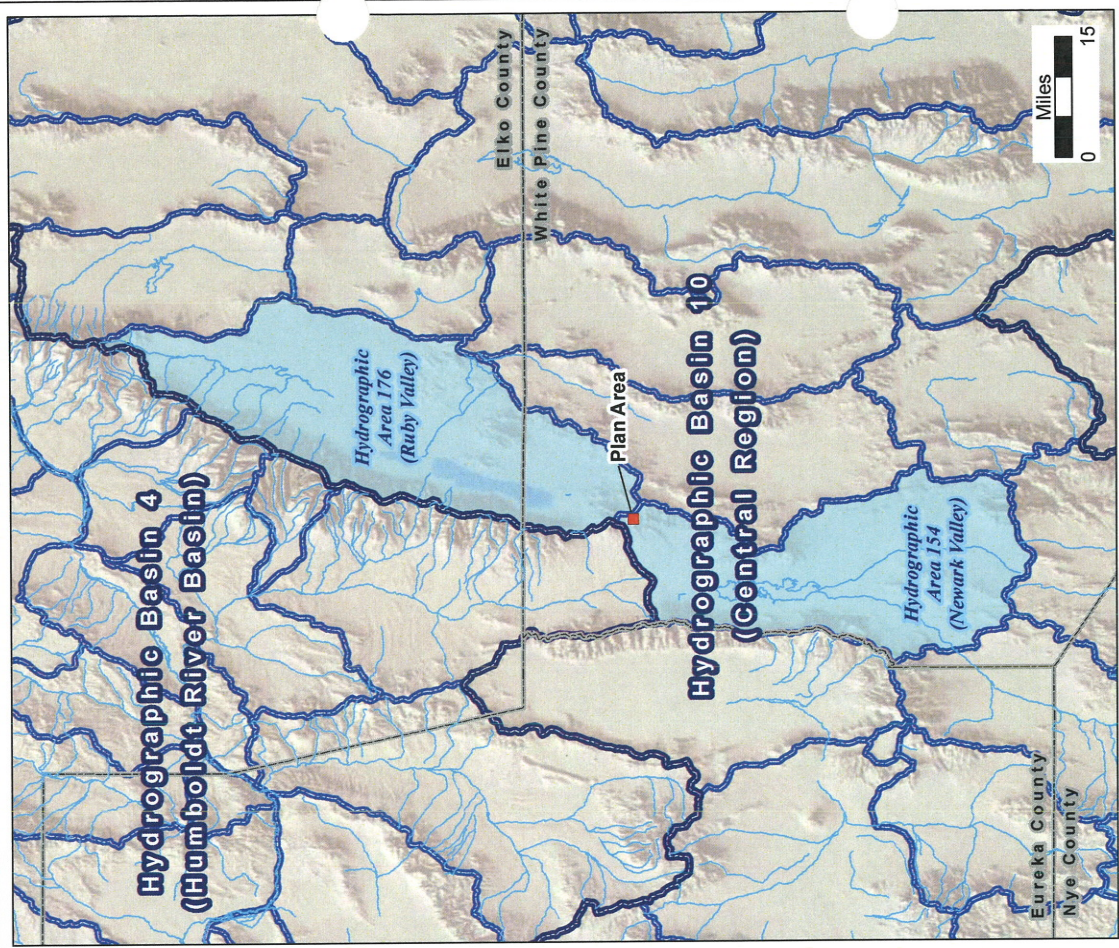
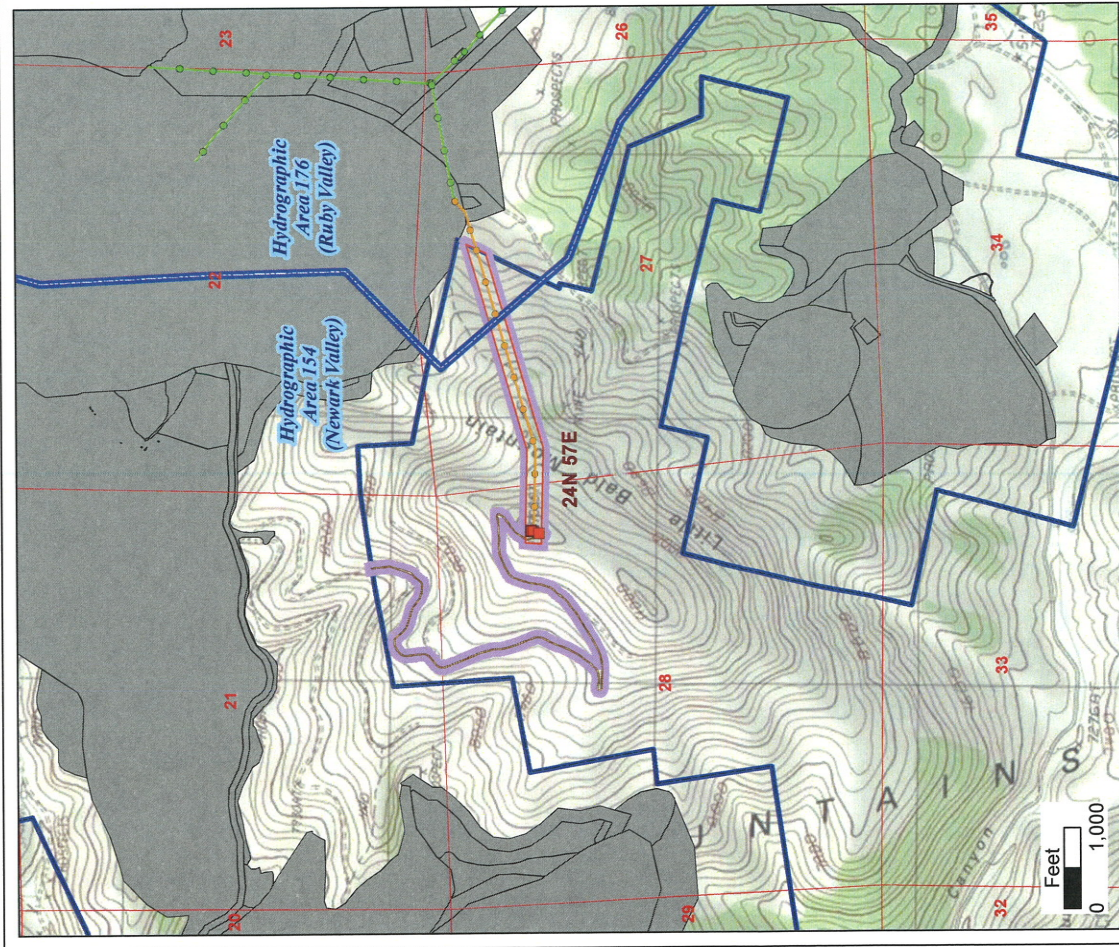






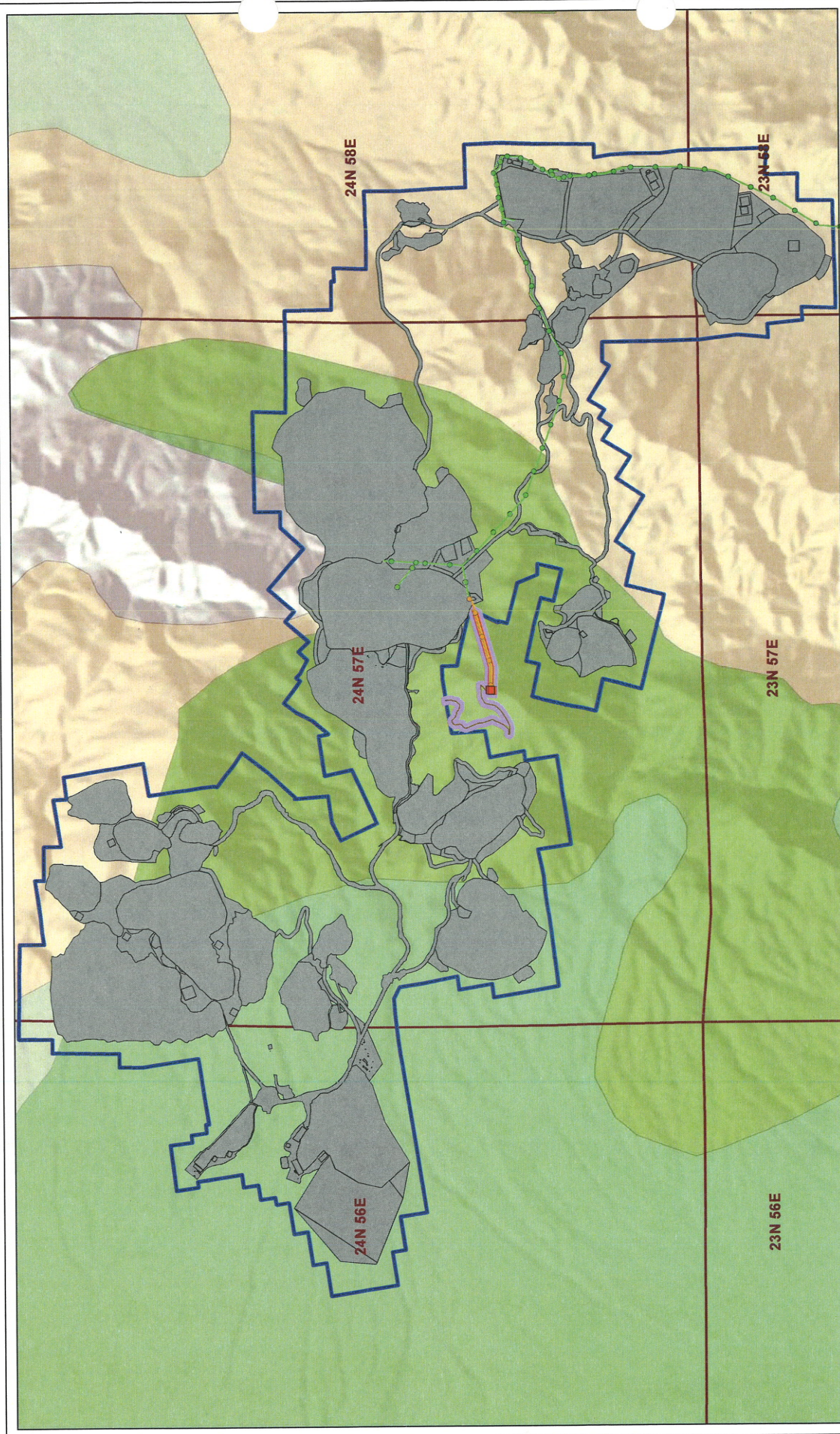
	<b>LITTLE BALD MOUNTAIN COMMUNICATION SITE ENVIRONMENTAL ASSESSMENT</b>		DRAWING TITLE:
	<b>TOWER LOCATIONS</b>		DRAWING NO.:
	EA - JULY 2011		REVISION:
NAD 27 STATE PLANE NEVADA EAST FEET SCALE: 1 inch = 40 feet		FIGURE 3	DATE:
0 40 Feet		7/6/2011	<b>A</b>






		<b>LITTLE BALD MOUNTAIN</b> <b>COMMUNICATION SITE</b> <b>ENVIRONMENTAL</b> <b>ASSESSMENT</b>	
NAD 27 STATE PLANE NEVADA EAST FEET SCALE: 1 inch = 1,481.854839 feet		DRAWING TITLE <b>HYDROGRAPHIC BASINS</b> EA - JULY 2011 DRAWING NO. <b>FIGURE 4</b> DATE <b>7/11/2011</b>	



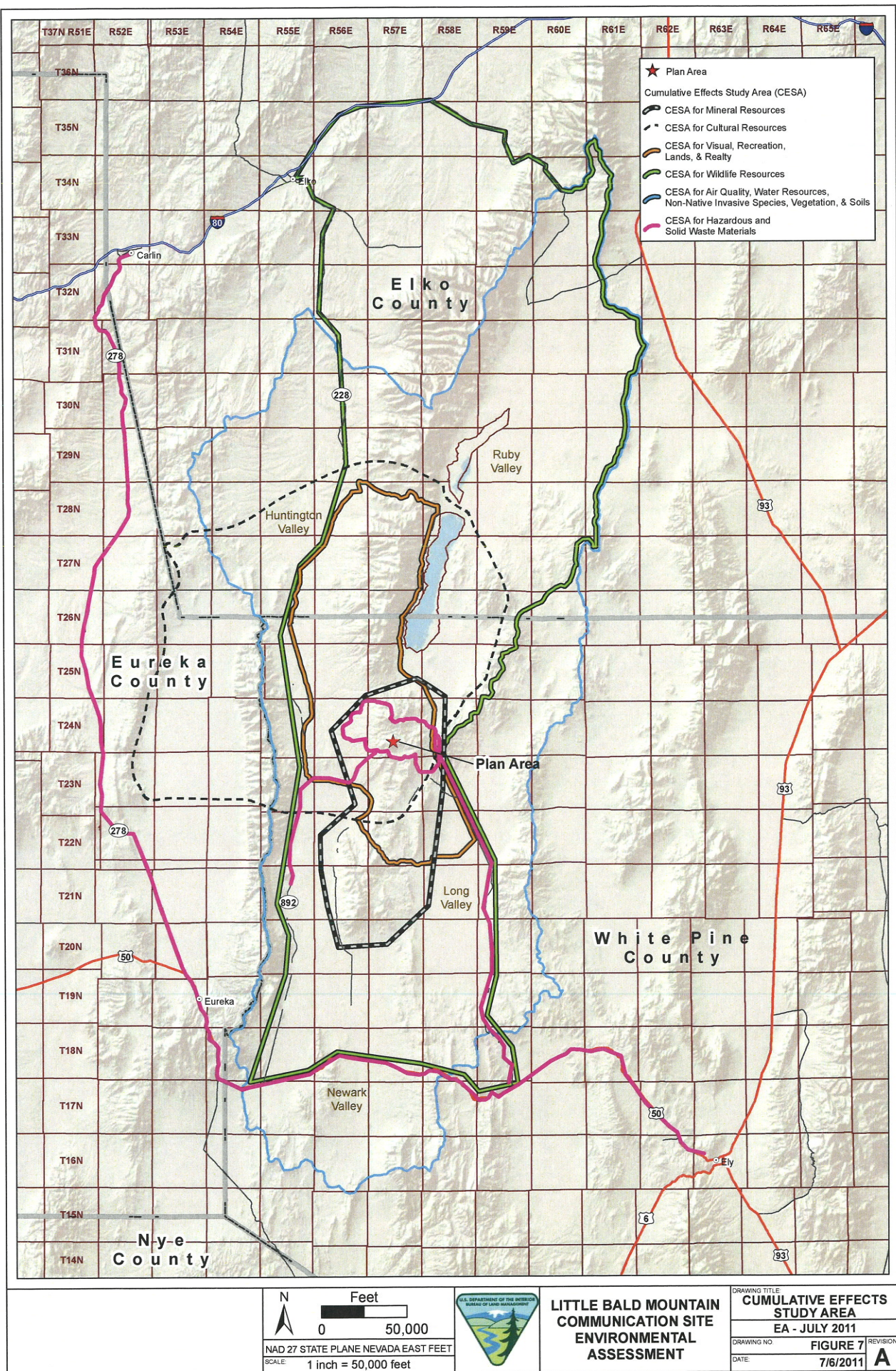


	<b>LITTLE BALD MOUNTAIN COMMUNICATION SITE ENVIRONMENTAL ASSESSMENT</b>		DRAWING TITLE <b>SAGE GROUSE HABITAT</b>
	EA - JULY 2011		DRAWING NO. <b>FIGURE 5</b>
	DATE <b>7/11/2011</b>		REVISION <b>A</b>

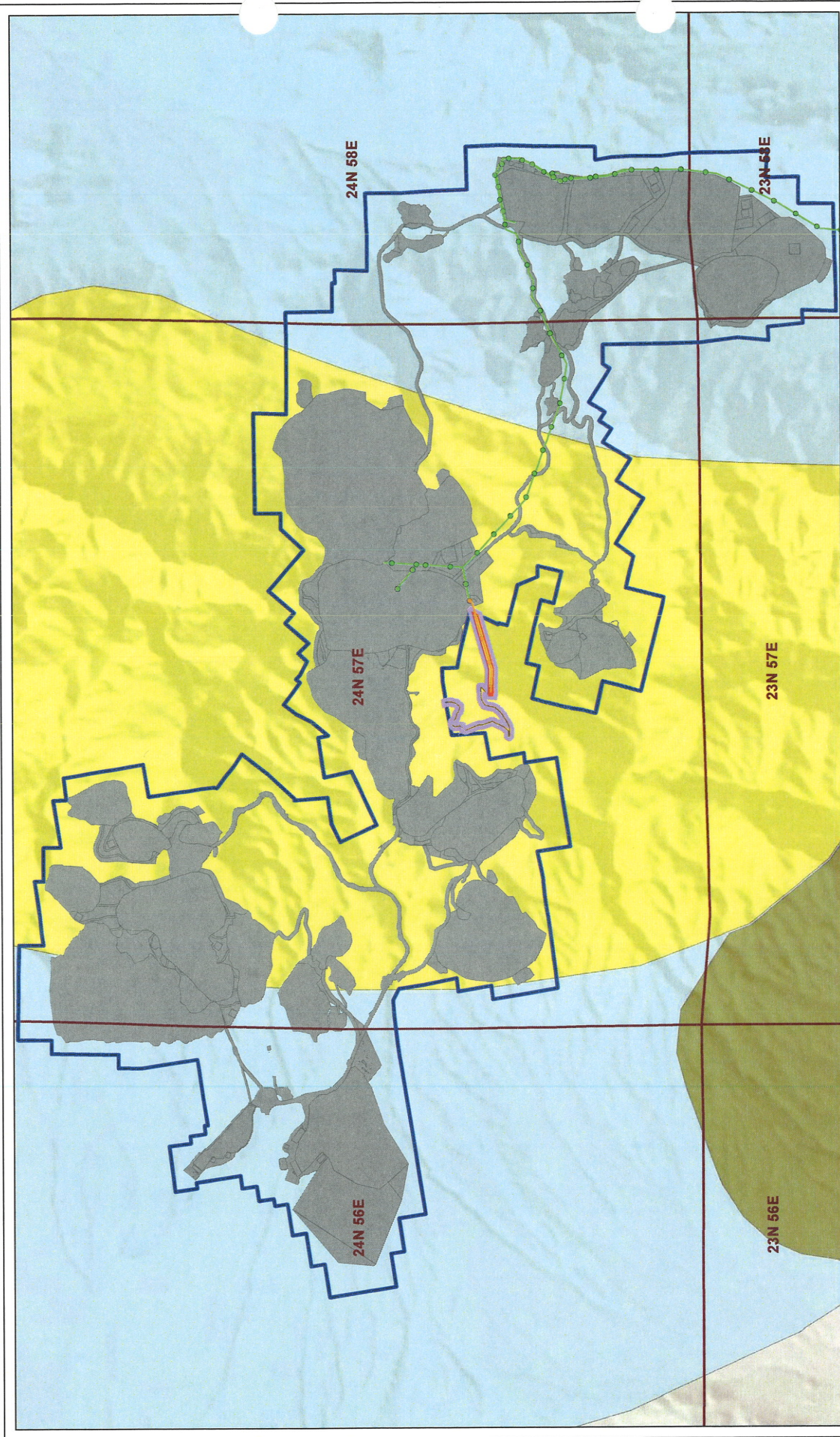
  


Feet 0 4,000 N	SCALE 1 inch = 4,000 feet
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	<b>LITTLE BALD MOUNTAIN COMMUNICATION SITE ENVIRONMENTAL ASSESSMENT</b>		DRAWING TITLE <b>MULE DEER HABITAT</b>
	EA - JULY 2011 DRAWING NO. <b>FIGURE 6</b> DATE <b>7/11/2011</b>		REVISION <b>A</b>
Feet 0 4,000 NAD 27 STATE PLANE NEVADA EAST FEET SCALE 1 inch = 4,000 feet		Legend: ■ Mule Deer Range ■ Communication Towers ■ Proposed Powerline ■ Authorized Powerline ■ Access Road and ROW ■ Crucial Winter ■ Winter Range ■ Year-round ■ Powerline ROW ■ Plan Area ■ Authorized Disturbance ■ BMM North Operations	



## **Appendix A**

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### **Other Federal Statutes, Regulations, Executive Orders, and Plans**

Relationships to other federal statutes, regulations, Executive Orders (E.O.) and plans include:

- American Indian Religious Freedom Act 1978 (42 U.S.C. 1996),
- Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa to 47011),
- Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668 – 688d)
- Clean Air Act, as amended (42 U.S.C. 7401 *et seq.*),
- Clean Water Act of 1977 (33 U.S.C. 1251 *et seq.*),
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. 9615),
- Council on Environmental Quality (40 C.F.R. §1500),
- E.O. 11988, as amended, Floodplain Management. May 24, 1977,
- E.O. 11990, Protection of Wetlands, May 24, 1977,
- E.O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994,
- E.O. 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, January 10, 2001,
- Endangered Species Act of 1973, as amended (16 U.S.C. 1531),
- Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*),
- Healthy Forests Restoration Act (HFRA) of 2003 (P.L. 108-148),
- Magnuson-Stevens Act Provision: Essential Fish Habitat: Final Rule (50 C.F.R. § 600; 67FR2376, January 17, 2002),
- Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 *et seq.*),
- National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*),
- National Historic Preservation Act, as amended (16 U.S.C. 470),
- Public Rangelands Improvement Act of 1978,
- Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901 *et seq.*),
- Safe Drinking Water Act, as amended (42 U.S.C. 300f *et seq.*),
- Surface Management (43 C.F.R. §3809 *et seq.*),
- Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 *et seq.*),
- Wild and Scenic Rivers Act as amended (16 U.S.C. 1271), and
- Wilderness Act of 1964 (16 U.S.C. 1131 *et seq.*).

All waters of the State of Nevada belong to the public, and may be appropriated for beneficial use pursuant to the provisions of Chapters 533 and 534 of the Nevada Revised Statutes (NRS). Any water used on the described lands should be provided by an established utility or under permit issued by the Nevada Division of Water Resources (NDWR), State Engineer's Office.

## **Appendix B**

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### **Plan of Development and SF-299**

**BALD MOUNTAIN MINE  
LITTLE BALD MOUNTAIN COMMUNICATION SITE  
PLAN OF DEVELOPMENT  
August 2011**

**Barrick Gold U.S., Inc.  
Bald Mountain Mine  
P.O. Box 2706  
Elko, NV 89803**

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## FIGURES

**Figure 1:** General Location

**Figure 2:** Access Road and Powerline

**Figure 3:** Tower Locations

## ATTACHMENTS

**Attachment 1:** Existing Facility Information

**Attachment 2:** Proposed Facility Information

**Attachment 3:** Tower D Design Drawings

## 1. Introduction

This document includes the plan of development for the proposed Barrick Gold U.S. Inc. (Barrick) Little Bald Mountain (LBM) communication site. This plan of development is being submitted with Standard Form 299 to the Bureau of Land Management (BLM) Ely District Office who will review the proposed activities and perform a scoping analysis in preparation for National Environmental Policy Act (NEPA) documentation.

Two of the towers (towers A and B) are already in existence while towers C and D are proposed; the permitting process is being conducted to: 1) permit the existing facilities; and 2) analyze and permit proposed facilities. For the proposed facilities, the plan of development includes the following power options, including the implementation of Power Option 1 in combination with either Power Option 2a or 2b. Development of the microwave tower would be dependent on the development of Power Option 1. The existing diesel generator is being removed and would be replaced by a propane generator and 1,000 gallon propane tank both set on skids.

- **Power Option 1:** Installation of a powerline and road from the Sage Flats transformer station to the LBM communication site;
- **Power Option 2a:** Installation of Tower C fitted with a wind generator approximately eight feet from Tower B and connected through an above-ground conduit;
- **Power Option 2b:** Installation of Tower C fitted with a wind generator approximately 74 feet from Tower B and connected through an above-ground conduit; and
- **Microwave Tower D:** Installation of Tower D fitted with a microwave approximately nine feet from Tower B and connected through an above-ground conduit.

Barrick's preferred option would be for the approval of Power Option 1 and either Power Option 2a or 2b. Under this circumstance, the communication site would have power from three possible sources (tie-in to the Sage Flat transformer, wind power, and back-up generator power). The development of Microwave Tower D would be dependent on the site receiving power from the Sage Flat transformer as proposed under Power Option 1.

## 2. Purpose and Need of the Facilities

Barrick is permitting two existing communication towers on LBM and proposes to alter their power source through the consideration of Power Options 1, 2a, and 2b. Barrick also proposes to add a new microwave tower to the communications site. The purpose for the communication site is to provide radio communications throughout the Bald Mountain Mine area and to improve communications to outside areas. The location of the LBM communication site and the Bald Mountain Mine project area are shown on Figure 1, and the existing access road is shown on Figure 2. Existing and proposed activities are shown on figures 2 and 3.

### Existing Tower A

Tower A was constructed in the early 1980's and held the original voice radio system for the mine. In 2007 Tower B was installed, and Tower A became a voice radio system back-up. In 2009 the original mast was replaced with an identical mast and Wi-Fi antennas were attached; the back-up voice radio system antenna was removed from the mast and installed on the adjacent wood storage building. The existing mast is a 20-foot high lattice frame on a five-square foot concrete foundation. Six Cisco Wi-Fi system antennas are mounted on this mast with power sourced from Tower B.

The adjacent wooden storage building measures four by six feet and is partially buried into the ground



with no foundation. The storage building houses three deep-cycle batteries, the secondary Motorola voice repeater, and supports a solar panel array. It also serves as a mounting structure for the secondary voice radio system antenna.

#### Existing Tower B

Tower B was installed in 2007 and consists of a 30-foot high lattice frame mast on a five-square foot concrete foundation. Two primary voice radio system antennas and two data microwave system antennas are mounted on this mast. The adjacent metal storage building is an eight by 16-foot steel Conex container set on drill steel piers. The building houses three banks of deep-cycle batteries, supports solar panel arrays, contains facilities to support a wind generator, and a back-up diesel power system consisting of a seven kW Kubota diesel generator which is being removed by Barrick. Type 2 diesel fuel has been stored in two 55-gallon drums on a three by 2.5-foot spill containment pallet as shown on Figure 3.

Towers A and B are connected via approximately 22 feet of PVC conduit elevated above the surface approximately four feet with weighted supports every three horizontal feet. The conduit supplies power from the steel storage building next to Tower B to the Cisco Wi-Fi system antennas mounted on Tower A.

#### Proposed Powerline – Power Option 1

Under Power Option 1 approximately 4,200 feet of powerline will be constructed from the Sage Flat transformer station to the communication site. The powerline will be constructed with an approximately 15-foot wide construction/emergency maintenance road and will consist of single wooden poles spaced at a maximum of 300 feet apart; approximately 15 poles will be required. The poles will be approximately 45 feet tall except over road crossings where the poles will be approximately 100 feet tall. A construction/emergency maintenance road will be constructed within the powerline corridor. This road will not be maintained nor used for regular access.

#### Proposed Tower C – Power Options 2a and 2b

Under Power Option 2 Tower C will be constructed as part of the LBM communications site. The tower will consist of a 30-foot tall lattice frame mast on an approximately four-square foot concrete foundation fitted with a wind generator. For Power Option 2a Tower C will be placed approximately nine feet from Tower B, and for Power Option 2b Tower C will be placed approximately 74 feet from Tower B as shown on Figure 3. Under both Power Option 2a and 2b Tower C will be connected to Tower B through an above-ground PVC conduit. Location will depend on position of greatest wind reception as determined by engineering studies.

The wind generator would be a VBINE Energy or similar vertical axis wind turbine which is a permanent magnet generator that takes wind from any direction. The cylindrical blade area measures just over 3.6 meters in width.

#### Proposed Microwave Tower D

Tower D will be constructed to support microwave communication equipment. The tower will be an 80-foot tall freestanding Valmont-type construction on a 9.5-square foot concrete foundation. Tower D would be placed approximately nine feet from Tower B and connected through an above-ground conduit as shown on Figure 3. The development of Microwave Tower D would be dependent on the development of the powerline under Power Option 1.

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### 3. Rights-of-Way Locations

The communication site will be located in White Pine County on public lands administered by the Bureau of Land Management (BLM). The proposed location is on top of Little Bald Mountain in Township 24 N, Range 57 E, Section 9 as shown on Figure 1.

There are currently no rights-of-way (ROW) associated with the LBM communication site. As there are currently no other existing communication sites and because Towers A and B already exist, subleasing is not an option. The towers and equipment will be removed upon closure of the mine as part of Barrick's reclamation activities. Transfer of the radio tower administration to another entity could be considered if the need arises.

#### Existing Facilities

The ROW for the existing facilities will be approximately 2.9 acres and will consist of the Tower A and Tower B concrete foundation footprints, a five-foot corridor for the 25-foot long above-ground conduit, the generator and fuel storage area, the metal and wooden storage building footprints, and the access road as shown on Figure 2. The access road has existed in this location since the 1980's and will continue to be used for access to the site under all options. The access road traverses through Township 24 North, Range 57 East, sections 21 and 28.

The tower coordinates in NAD 27 State Plane East feet are:

- Tower A: Northing 1,884,912.88 and Easting 508,258.96
- Tower B: Northing 1,884,895.67 and Easting 508,250.5

#### Power Option 1

Under Power Option 1 the approximately 4,400-foot powerline route and associated 15-foot wide road will extend out beyond the Bald Mountain Mine project boundary by approximately 3,612 feet. The associated 17.3-acre ROW will contain the construction/emergency maintenance road and powerline within a 200-foot access corridor, the existing facilities, a portion of the access road, and the facilities proposed under Power Options 2a, 2b, and the proposed Microwave Tower D. It will also contain approximately 0.1 acres of the existing access road for a total ROW area of 20.1 acres. The powerline will traverse across Township 24 North, Range 57 East, sections 27 and 28 as shown on Figure 2.

#### Power Option 2a

Under Power Option 2a Tower C will be constructed with a four-square foot concrete foundation footprint and a 45-square foot above-ground conduit corridor (approximately nine feet long by five feet wide). This will result in an addition of 61 square feet to the existing facilities ROW, resulting in an increase of less than one-tenth of an acre. Under Power Option 2a Tower C location coordinates will be Northing 1,884,876.02 and Easting 508,246.16.

#### Power Option 2b

Under Power Option 2b Tower C will be constructed with a four-square foot cement foundation footprint and a 370-square foot above-ground conduit corridor (approximately 74 feet long by five feet wide); this will result in an additional 386 square feet to the existing facilities ROW resulting in an increase of less than one-tenth of an acre. Under Power Option 2b Tower C location coordinates will be Northing 1,884,806.09 and Easting 508,223.39.

#### Microwave Tower D

The proposed Microwave Tower D will be constructed with a 9.5-square foot concrete foundation footprint and a 45-square foot above-ground conduit corridor (approximately nine feet long by five feet wide), this will result in an additional 135 square feet to the existing facilities ROW resulting in an increase of less than one-tenth of an acre. Tower D location coordinates will be Northing 1,884,907.86 and Easting 508,244.60.

A summary of the proposed ROWs are provided in Table 1. The summary includes the existing facilities and the acres associated with the preferred combination of Power Option 1 with either Power Option 2a or 2b and the Microwave Tower D:

**Table 1: Summary of ROWs**

Option	ROW area (acres)
Existing Facilities	2.9
Existing Facilities and Power Option 1	20.1
Existing Facilities and Power Option 2a	2.9 (61-square foot increase above existing facilities ROW)
Existing Facilities and Power Option 2b	2.9 (386-square foot increase above existing facilities ROW)
Microwave Tower D	135 square feet
<i>Preferred Combination</i> - Existing Facilities, Power Option 1, Power Option 2a or 2b, and Microwave Tower D.	20.1

#### **4. Facility Design Factors**

Photographs of the existing towers and communication facilities are provided in Attachment 1 along with information about the propane generator. The Power Option 1 powerline alignment is shown on Figure 2. Facility locations for Power Options 2a, 2b, and Microwave Tower D are shown on Figure 3. Photographs and information about the wind generator and propane generator are included in Attachment 2 and construction details for Microwave Tower D are included in Attachment 3. The towers will be built in accordance with county, state, and federal requirements as applicable. No conflicts with other regional telecommunication or radio towers are anticipated.

#### **5. Additional Components and Construction**

Construction of the communication tower will be performed by Barrick personnel or contractors and will be completed using the existing access road. Staging will be done within a 50-foot diameter circle around the towers and/or powerline poles. The ROW and components of this radio tower will be located on public lands administered by the BLM. Construction personnel will follow Barrick safety protocols.

#### **6. Government Agencies Involved**

The radio tower will be built in accordance with county, state, and federal requirements as applicable. Barrick will also file for any additional permits with the FAA and FCC as required.

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## 7. Applicant Committed Environmental Protection Measures

Design features (applicant-committed environmental protection measures) have been developed for the Bald Mountain Mine project as a way of minimizing or avoiding environmental impacts. The design features as will be applied to the LBM communication site are discussed in the following sections.

### Air Quality

Air emissions will continue to be controlled in accordance with the air quality operating permits for the Bald Mountain Mine project and with present best management practices (BMPs). For example, dust control will be provided for roads through water or chemical application as needed. The propane generator will be permitted or added to the Bald Mountain Mine air quality permit, as necessary.

### Stormwater

BMPs will continue to limit erosion and sediment transport from proposed facilities and disturbed areas during construction and operation, in accordance with the Nevada General Stormwater Permit NVR300000 and the site *Stormwater Pollution Prevention Plan* (SWPPP). Management practices may include, but would not be limited to, diversions and routing of stormwater away from development using accepted engineering practices, such as diversion ditches, sediment traps, and rock and gravel covers. Following construction activities reclamation will be conducted to accelerate stabilization of disturbed areas which will not be used.

### Wildlife

Land clearing and surface disturbance will be timed to prevent destruction of active bird nests or young of birds during the avian breeding season (April 15 to July 15, annually in accordance with the Ely Field Office policies) to comply with the Migratory Bird Treaty Act. If surface disturbing activities are unavoidable during this breeding season, Barrick will have a qualified biologist survey areas proposed for disturbance for the presence of active nests immediately prior to the disturbance.

If active nests are located, or if other compelling evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), the area will be avoided or buffer zones established to prevent destruction or disturbance of nests until the birds are no longer present. Avian surveys are proposed to be conducted only during the avian breeding season and immediately prior to Barrick conducting activities that result in disturbance. After such surveys are performed and the related disturbance created (i.e., road construction and drill pad development), Barrick will not conduct additional disturbance during the avian breeding season without first conducting another avian survey. After July 15, no further avian surveys will be required until the next year.

Bald and golden eagles are protected under the *Bald and Golden Eagle Protection Act* (Act) (16 USC 668-688d). The Act prohibits the taking or possession of and commerce in bald and golden eagles, parts, feathers, nests, or eggs with limited exceptions. The definition of "take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available:

- Injury to an eagle;
- A decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or
- Nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior.

Barrick's existing and proposed construction, operation, and reclamation procedures inherently incorporate measures to protect eagles. Surveys are conducted prior to ground disturbance in the breeding and nesting seasons to determine the presence or absence of eagles as well as other migratory avian species protected under the Migratory Bird Treaty Act. If nesting or brooding eagles are determined to be present, Barrick will avoid the area using a buffer zone developed in coordination with the BLM and NDOW.

Ground disturbance is and will continue to be minimized where possible to retain eagle foraging habitat to maintain production, and by not interfering with normal breeding, feeding, or sheltering. Where possible, reclamation is and will continue to be performed concurrently to reduce the duration of disturbance and accelerate the return to the pre-mining land uses including wildlife use with a concomitant return of the eagles' prey base.

In order to prevent an illegal take or disturbance of bald or golden eagles, Barrick will continue to utilize the following measures followed for the Bald Mountain mine site:

- Where possible, protect and preserve potential roost and nest sites by retaining mature trees particularly within one-half mile from water;
- Noxious and invasive weed control will not be conducted within 0.5 mile of nesting and brood-rearing areas during the nesting and brooding season. Whenever possible, hand spraying herbicides will be the preferred method;
- Where eagles are likely to nest in human-made structures such as cell phone towers, and such use could impede the operation and maintenance of the structures or jeopardize the safety of eagles, the structures will be equipped with either devices engineered to discourage eagles from nest-building, or construct nesting platforms that will safely accommodate eagle nests without interfering with structure performance;
- Employ industry-accepted BMPs to prevent eagles from colliding with or being electrocuted by utility lines, towers, and poles;
- To avoid collisions, site communications towers and high voltage transmission lines will be located away from nests, foraging areas, and communal roost sites;
- Process areas are designed to prevent contact between eagles and process solution by the using of bird balls on process ponds and placing overliner or other material over conveyance ditches;
- Speed limits will be maintained to reduce vehicle/eagle collisions; and
- During annual training, Barrick will remind employees of their individual and Barrick's responsibilities toward protecting eagles.

### Cultural Resources

Avoidance is the Barrick-preferred treatment for preventing effects to historic properties [an historic property is any prehistoric or historic site eligible for the National Register of Historic Places (NRHP)] or unevaluated cultural resources. If avoidance is not possible or is not adequate to prevent adverse effects, Barrick will undertake data recovery at the affected sites in accordance with the Programmatic Agreement between Barrick, the BLM, Nevada State Historic Preservation Office (SHPO), and the advisory Council on Historic Preservation. Development of a treatment plan, data recovery, archeological documentation, and report preparation will be based on the "Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation," 48 CFR 44716 (September 29, 1983), as amended or replaced. If an unevaluated site cannot be avoided, additional information will be gathered and the site will be evaluated. If the site does not meet eligibility criteria as defined by the



Nevada SHPO, no further cultural work will be performed. If the site meets eligibility criteria, a data recovery plan or appropriate mitigation will be completed under the Programmatic Agreement. Once data recovery has been completed at a historic property, the BLM will issue a Notice to Proceed for work at that location.

#### Invasive, Non-native Species

Barrick will work with the BLM and the Tri-County Weed District to prevent the spread of invasive, non-native species in the area. Barrick also works in cooperation with the Newark Valley/Long Valley Cooperative Weed Management Group. Employees and contractors will be educated to identify weeds that could occur in the area disturbed. Should invasive weeds be identified, Barrick will take appropriate measures to prevent their spread.

Barrick will follow BMPs in order to prevent the spread of invasive weeds in the areas of the proposed activities. BMPs include the following:

- Following the BLM BMPs included in Appendix L of the *2010 North Operations Area Amendment* (BMM 2010) presents the *Invasive, Non-native Species and Noxious Weed Control Plan*;
- Surveying the proposed disturbance area prior to construction to determine if invasive weeds already exist;
- Flagging areas of concern to prevent employees from driving through a stand of listed noxious weeds;
- Training employees and contractors to identify noxious weeds;
- Segregating growth media that may contain noxious weed seeds away from growth media not containing noxious weed seeds;
- Seeding growth media stockpiles as soon as practical with an interim seed mix;
- Using certified weed-free hay and straw;
- Using a BLM-recommended seed mix to reduce invasive species over time by developing and maintaining desired plant communities; and
- Washing down construction equipment in accordance with the BLM standard operating procedures to prevent the transfer of noxious and undesirable weed seed from other areas.

#### Fire Management

Barrick will comply with applicable federal and state fire laws and regulations and will take reasonable measures to prevent and suppress fires in the area of operations.

#### Chemical Reagent Requirements and Hazardous Materials Management

Diesel fuel (#1 and #2), grease, petroleum oil, propane, and solvents may be utilized as part of the proposed activities in conjunction with equipment operation. Approved staging facilities, safety measures, transportation, and handling requirements are already in use for the Bald Mountain Mine and will continue to be utilized for the communications site. Construction, operation, and maintenance activities will comply with applicable federal, state, and local laws and regulations regarding the use of hazardous substances and the protection of air and water quality.

### **8. Resource Values and Environmental Concerns**

No impacts are anticipated to the following resources:

- Areas of critical environmental concern;



- Rangeland;
- Environmental Justice;
- Floodplains;
- Human health and safety;
- Lands with wilderness characteristics;
- Mineral resources;
- Paleontological resources;
- Prime and unique farmlands;
- Recreation;
- Wetlands and riparian zones;
- Wilderness; and
- Wild horses.

Anticipated impacts to the following resources are addressed below, with consideration for the applicant committed environmental protection measures discussed in Section 7.

#### Air Quality

Land disturbance associated with the construction of the powerline, road, and towers will result in increased fugitive dust emissions and increased vehicle emissions related to construction. Operation of the generator would contribute to combustion-related air emissions.

#### Cultural Resources

Areas proposed for disturbance will be surveyed for cultural resources prior to their disturbance. If sites are located and if impacts to these sites are determined to occur, they will be mitigated through avoidance or a historic properties treatment plan approved by the BLM in accordance with the procedures outlined by the Programmatic Agreement between Bald Mountain Mine, the BLM, and the SHPO signed in 1995 and the Protocol Agreement between BLM and SHPO signed in 2009. Therefore, the Proposed Action will have minimal impacts to cultural resources.

#### Water Resources

Land disturbing activities could result in increased sediment loads to surface waters. BMPs as described in Section 7 will be followed to minimize this effect. No springs or perennial surface waterways have been identified within the proposed ROW boundaries.

#### Wildlife including Special Status Species and Migratory Birds

Impacts to wildlife including special status species and migratory birds include loss of habitat, potential injury and mortality from increased traffic, and human disturbance. Environmental impacts to migratory birds could also include the possible destruction of nests. The proposed towers, powerline poles, and/or wire could potentially create roosting sites for predatory birds. The proposed wind generator could pose a hazard to volant wildlife.

To avoid certain impacts to active migratory bird nests, eggs, and/or young, Barrick proposes to continue performing land-clearing activities outside of the avian breeding season (April 15 to July 15, as specified by the BLM's Egan Field Office) as described in Section 7.

Environmental impacts to federally listed animal species are not anticipated. The bald eagle was de-listed (removed from the U.S. Fish and Wildlife Service list of threatened and endangered species) in

August 2007. Bald eagle occurrence is considered unlikely within the Plan area due to the lack of water and large trees that could be used as roost sites; however, applicant committed environmental protection measures concerning eagles as described in Section 7 will be followed. The Proposed Action is not expected to contribute toward re-listing of the species.

#### Wastes, Hazardous and Solid

The options proposed will not change the amount of hazardous wastes or materials created.

#### Soil Resources

Direct impacts to soils will include grubbing and grading. Soil disturbances will remove the upper soil horizons, impede maturation of soil development, degrade soil structure, and hinder soil biological activity. Additionally, exposed soils will be susceptible to wind and water erosion; however, this impact will be reduced by adherence to soil erosion BMPs as described in Section 7.

#### Non-Native and Invasive Species

Impacts related to non-native and invasive species as related to the proposed options includes increased potential spread of non-native invasive species into disturbed areas. Indirect impacts include a decrease in native plant communities with an increase in competition from noxious weeds and invasive species. Barrick will implement the BMPs described in Section 7 and will extend the implementation of their current *Invasive, Non-native Species and Noxious Weed Control Plan* to this area.

#### Visual Resources

Impacts to visual resources include changes in line, form, color, and texture resulting from the clearing of vegetation and facility construction. The great majority of impacts will last until reclamation occurs, the structures are removed, and natural vegetation has re-established in disturbed areas. Until then, line, form, color, and texture changes will be apparent with altered vegetation communities.

#### Lands and Realty

The proposed options involve the creation of ROWs. Once included in a ROW, these lands will not be available for ROW designation for other project proponents without a lease-share agreement.

#### Vegetation Resources including Special Status Species

Direct impacts to vegetation will include the removal of vegetation. Indirect impacts to vegetation will include increased potential for non-native invasive species establishment. Other indirect impacts include the short-term loss of forage and cover for wildlife, increased foraging pressures on adjacent areas, and a potential increase of the erosion potential to soils which could further affect adjacent vegetated areas.

### **9. Reclamation**

The post-mining land use for the area disturbed by the expansion is expected to be similar to the pre-mining land uses. The uses include mineral exploration, mining, livestock grazing, wildlife habitat, and recreation. Reclamation will be in conformance with the BLM and Nevada state reclamation regulations. Concurrent reclamation will occur where safe and practical. Experience from past reclamation efforts will be considered for designing reclamation of the proposed disturbance. Chapter 3 of the *2010 North Operations Area Amendment* (BMM 2010) describes the Bald Mountain Mine reclamation plan in detail; similar reclamation activities would be conducted for the LBM communication site.

Growth media will be salvaged for use in reclamation where available prior to construction of mine components, including pits, targeting minimum reclamation cover volumes for nearby components. The

depth of growth media placed on disturbed areas may vary but will be sufficient to meet the revegetation standards as provided in the *Nevada Guidelines for Successful Revegetation*. Reclaimed surfaces will be revegetated to reduce runoff and erosion, provide forage for wildlife and livestock, control invasive weeds, and reduce visual impacts. Seed will be applied with either a rangeland drill, hydroseeder, or a mechanical broadcaster and harrow, depending upon accessibility.

Roads and safety berms will generally be recontoured or regraded to approximate to the original topography when no longer needed. Reclamation of roads in very steep terrain may not allow original topography to be attained. In this case, the cross-section will be blended to ensure no slopes steeper than 2.5H:1V occur except where cut banks are on the inside of the road and located generally in bedrock. Those cuts in bedrock may remain as long-term features similar to a cliff or rock outcrop. Where the road is located on fill, the side slopes will be rounded and regraded to 3H:1V. Compacted road surfaces will then be ripped, covered with growth media from the safety berms or road fill if required, and revegetated.

As determined by the BLM, roads on public lands suitable for public access or which continue to provide public access consistent with pre-mining conditions will not be reclaimed at mine closure.

During final mine closure, buildings and structures will be dismantled and materials salvaged or removed to the site landfill or other appropriate disposal site. Concrete foundations and slabs will be broken up using a track-hoe mounted hydraulic hammer or similar methods and buried in place under approximately three feet of material in such a manner to prevent ponding and to allow vegetation growth. After demolition and salvage operations are complete, the disturbed areas will be covered with growth media and revegetated.

## **10. Operation and Maintenance**

Operation of the facilities will be conducted by a third party operator while general maintenance of the site and access road will be conducted in cooperation with Bald Mountain Mine personnel.

Access to the site via road is only possible from within the Bald Mountain Mine plan boundary; as access to that part of the mine area is already restricted. Public access to the communication site will be restricted by location. The site will be accessible for most of the year, with access limitation depending on seasonal snow and mud.

**Print****Reset**

STANDARD FORM 299 (5/2009)  
Prescribed by DOI/USDA/DOT  
P.L. 96487 and Federal  
Register Notice 5-22-95

**APPLICATION FOR TRANSPORTATION AND  
UTILITY SYSTEMS AND FACILITIES  
ON FEDERAL LANDS**

FORM APPROVED  
OMB NO. 1004-0189  
Expires: April 30, 2012

**FOR AGENCY USE ONLY**

Application Number

Date filed

**NOTE:** Before completing and filing the application, the applicant should completely review this package and schedule a preapplication meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the preapplication meeting.

1. Name and address of applicant *(include zip code)*

2. Name, title, and address of authorized agent if different from Item 1 *(include zip code)*

3. TELEPHONE *(area code)*

Applicant

Authorized Agent

4. As applicant are you? *(check one)*

- a. ☐ Individual  
b. ☐ Corporation\*  
c. ☐ Partnership/Association\*  
d. ☐ State Government/State Agency  
e. ☐ Local Government  
f. ☐ Federal Agency

\* If checked, complete supplemental page

5. Specify what application is for: *(check one)*

- a. ☐ New authorization  
b. ☐ Renewing existing authorization No.  
c. ☐ Amend existing authorization No.  
d. ☐ Assign existing authorization No.  
e. ☐ Existing use for which no authorization has been received\*  
f. ☐ Other\*

\*If checked provide details under Item 7

6. If an individual, or partnership are you a citizen(s) of the United States? ☐ Yes ☐ No

7. Project description *(describe in detail)*: (a) Type of system or facility, *(e.g., canal, pipeline, road)*; (b) related structures and facilities; (c) physical specifications *(length, width, grading, etc.)*; (d) term of years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction *(Attach additional sheets, if additional space is needed)*

8. Attach a map covering area and show location of project proposal

9. State or local government approval: ☐ Attached ☐ Applied for ☐ Not required

10. Nonreturnable application fee. ☐ Attached ☐ Not required

11. Does project cross international boundary or affect international waterways? ☐ Yes ☐ No *(If "yes," indicate on map)*

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.

13a. Describe other reasonable alternative routes and modes considered.

**The proposed options and combination of alternatives are discussed in the Plan of Development.**

b. Why were these alternatives not selected?

**Options under consideration are discussed in the Plan of Development.**

c. Give explanation as to why it is necessary to cross Federal Lands

**The Bald Mountain Mine project area is located on 99 percent public lands administered by the Bureau of Land Management. The existing communication site, proposed powerline, and proposed towers are located on public land.**

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency (Specify number, date, code, or name)

**Bald Mountain Mine has multiple existing radio towers within the mine area. A Plan of Development has been submitted for two communication towers for the Bald Mountain Mine as part of the Mooney Heap and Little Bald Mountain Mine Expansion Project (DIO-BLM-NV-L010-2011-001-EA). This document is under review as of April 2011.**

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance), (b) estimated cost of next best alternative; and (c) expected public benefits.

**Installation of the proposed communication towers is needed to increase communication redundancy for operation and safety purposes at the Bald Mountain Mine. Safety benefits would extend to public emergencies in the vicinity of the mine and in relation to mine activities. As a large gold-producer and regional industrial player, the project costs are well within Bald Mountain Mine means.**

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

**Pre- and post-mining land use includes mineral exploration, mining, livestock grazing, wildlife, wild horse habitat, and recreation. Due to the location of the project, social and economic aspects/impacts are unlikely. Powerlines and infrastructure will be removed following final closure of the site in accordance with all State and Federal requirements.**

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.

**Likely environmental effects are discussed in greater detail in the Plan of Development.**

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plantlife, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

**Likely environmental effects are discussed in greater detail in the Plan of Development.**

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 9601 et seq., and its regulations. The term hazardous materials also includes any nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.

**Bald Mountain Mine will not utilize hazardous materials during the construction or operation of the LBM Communication Site besides those used for the operation and maintenance of mobile equipment and the generator.**

20. Name all the Department(s)/Agency(ies) where this application is being filed

**Bureau of Land Management- Ely District, Egan Field Office  
Nevada Division of Environmental Protection- Bureau of Mining Regulation & Reclamation (Reclamation Branch)**

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant David L. Mc Clure Date 4-27-2011

Title 18, U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(SF-299, page 2)



APPLICATION FOR TRANSPORTATION AND UTILITY SYSTEMS  
AND FACILITIES ON FEDERAL LANDS

GENERAL INFORMATION  
ALASKA NATIONAL INTEREST LANDS

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest Lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation and utility systems and facility uses for which the application may be used are:

1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.
2. Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.
3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.
4. Systems for the transmission and distribution of electric energy.
5. Systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.
6. Improved rights-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.
7. Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

U.S. Department of Agriculture  
FOREST SERVICE (USFS)  
Alaska Regional Office (Region 10)  
*Physical Address:*  
Federal Office Building  
709 West 9th Street  
Juneau, Alaska 99801  
*Mailing Address:*  
P.O. Box 21628  
Juneau, Alaska 99802  
Telephone: 907-586-8806

U.S. Department of the Interior  
BUREAU OF INDIAN AFFAIRS (BIA)  
Alaska Regional Office (Juneau)  
*Mailing/Physical Address:*  
P.O. Box 25520  
709 West 9th Street  
Juneau, Alaska 99802  
Telephone: 800-645-8397

U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT (BLM)  
Alaska State Office  
*Mailing/Physical Address:*  
222 West 7th Avenue #13  
Anchorage, Alaska 99513  
Telephone: 907-271-5960

U.S. Department of the Interior  
NATIONAL PARK SERVICE (NPS)  
Alaska Regional Office (Anchorage)  
*Mailing/Physical Address:*  
240 West 5th Avenue, Room 114  
Anchorage, Alaska 99501  
Telephone: 907-644-3501

U.S. Department of the Interior  
FISH AND WILDLIFE SERVICE  
Alaska Regional Office (Region 7)  
*Mailing/Physical Address:*  
1011 East Tudor Road  
Anchorage, Alaska 99501  
Telephone: 907-271-5011

Note: Filings with any Department of the Interior agency may be filed with any office noted above or with the:

U.S. Department of the Interior  
OFFICE OF ENVIRONMENTAL POLICY AND COMPLIANCE  
Alaska Regional Office (Anchorage)  
Regional Environmental Officer  
1689 C Street, Room 119  
Anchorage, Alaska 99501  
Telephone: (907) 271-5011

U.S. Department of Transportation  
FEDERAL AVIATION ADMINISTRATION  
Alaska Regional Office (Anchorage)  
222 West 7th Avenue, #14  
Anchorage, Alaska 99513  
Telephone: 907-271-5269

**NOTE** - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA).

OTHER THAN ALASKA NATIONAL INTEREST LANDS

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual departments/agencies may authorize the use of this form by applicants for transportation and utility systems and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska, applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

SPECIFIC INSTRUCTIONS

(Items not listed are self-explanatory)

Item

- 7 Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.
  - 8 Generally, the map must show the section(s), township(s), and ranges within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.
  - 9, 10, and 12 - The responsible agency will provide additional instructions.
  - 13 Providing information on alternate routes and modes in as much detail as possible, discussing why certain routes or modes were rejected and why it is necessary to cross Federal lands will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate routes and modes as related to current technology and economics.
  - 14 The responsible agency will provide instructions.
  - 15 Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.
  - 16 through 19 - Providing this information in as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use a sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.
- Application must be signed by the applicant or applicant's authorized representative.

If additional space is needed to complete any item, please put the information on a separate sheet of paper and identify it as "Continuation of Item".



**SUPPLEMENTAL**

NOTE: The responsible agency(ies) will provide additional instructions	CHECK APPROPRIATE BLOCK	
	ATTACHED	FILED*
<b>I - PRIVATE CORPORATIONS</b>		
a. Articles of Incorporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Corporation Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
c. A certification from the State showing the corporation is in good standing and is entitled to operate within the State.	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. The name and address of each shareholder owning 3 percent or more of the shares, together with the number and percentage of any class of voting shares of the entity which such shareholder is authorized to vote and the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by the entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly or indirectly, by that entity, and in the case of an affiliate which controls that entity, the number of shares and the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate.	<input type="checkbox"/>	<input type="checkbox"/>
f. If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications	<input type="checkbox"/>	<input type="checkbox"/>
g. If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.	<input type="checkbox"/>	<input type="checkbox"/>
<b>II - PUBLIC CORPORATIONS</b>		
a. Copy of law forming corporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Proof of organization	<input type="checkbox"/>	<input type="checkbox"/>
c. Copy of Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>
<b>III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY</b>		
a. Articles of association, if any	<input type="checkbox"/>	<input type="checkbox"/>
b. If one partner is authorized to sign, resolution authorizing action is	<input type="checkbox"/>	<input type="checkbox"/>
c. Name and address of each participant, partner, association, or other	<input type="checkbox"/>	<input type="checkbox"/>
d. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>

\* If the required information is already filed with the agency processing this application and is current, check block entitled "Filed." Provide the file identification information (e.g., number, date, code, name). If not on file or current, attach the requested information.

## NOTICES

NOTE: This applies to the Department of the Interior/Bureau of Land Management (BLM).

The Privacy Act of 1974 provides that you be furnished with the following information in connection with the information provided by this application for an authorization.

AUTHORITY: 16 U.S.C. 310 and 5 U.S.C. 301.

PRINCIPAL PURPOSE: The primary uses of the records are to facilitate the (1) processing of claims or applications; (2) recordation of adjudicative actions; and (3) indexing of documentation in case files supporting administrative actions.

ROUTINE USES: BLM and the Department of the Interior (DOI) may disclose your information on this form: (1) to appropriate Federal agencies when concurrence or supporting information is required prior to granting or acquiring a right or interest in lands or resources; (2) to members or the public who have a need for the information that is maintained by BLM for public record; (3) to the U.S. Department of Justice, court, or other adjudicative body when DOI determines the information is necessary and relevant to litigation; (4) to appropriate Federal, State, local, or foreign agencies responsible for investigating, prosecuting violation, enforcing, or implementing this statute, regulation, or order; and (5) to a congressional office when you request the assistance of the Member of Congress in writing.

EFFECT OF NOT PROVIDING THE INFORMATION: Disclosing this information is necessary to receive or maintain a benefit. Not disclosing it may result in rejecting the application.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The Federal agencies collect this information from applicants requesting right-of-way, permit, license, lease, or certifications for the use of Federal Lands.

Federal agencies use this information to evaluate your proposal.

No Federal agency may request or sponsor and you are not required to respond to a request for information which does not contain a currently valid OMB Control Number.

**BURDEN HOURS STATEMENT:** The public burden for this form is estimated at 25 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to: U.S. Department of the Interior, Bureau of Land Management (1004-0189), Bureau Information Collection Clearance Officer (WO-630) 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

A reproducible copy of this form may be obtained from the Bureau of Land Management, Division of Lands, Realty and Cadastral Survey, 1620 L Street, N.W., Rm. 1000 LS, Washington, D.C. 20036.

## **Appendix C**

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# **Applicable Design Features (Applicant- Committed Environmental Protection Measures)**

Critical Element/Resource	Potential Concerns	Actions to Minimize or Avoid Impacts
Air Quality	<ul style="list-style-type: none"> <li>• Fugitive dust from roads and loading/dumping</li> <li>• Exhaust emissions</li> <li>• Reduction of airborne fugitive dust</li> <li>• </li> </ul>	<ul style="list-style-type: none"> <li>• Use dust abatement techniques on unpaved, unvegetated surfaces to minimize airborne dust</li> <li>• Conduct maintenance on equipment to ensure proper function</li> <li>• Post and enforce speed limits (e.g., 25 miles per hour)</li> <li>• Use dust abatement techniques before and during surface clearing, excavation, or blasting activities</li> <li>• Compliance with NDEP air permit</li> </ul>
Water Resources	<ul style="list-style-type: none"> <li>• Impacts to groundwater</li> <li>• Erosion (water)</li> </ul>	<ul style="list-style-type: none"> <li>• Install erosion control berms, silt fence, straw bales, detention basins, or other features as necessary in areas prone to erosion</li> </ul>
Cultural Resources	<ul style="list-style-type: none"> <li>• Cultural resource protection</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that activities associated with the undertaking, within 100 meters of the discovery, are halted and the discovery is appropriately protected until the BLM Authorized Officer issues a Notice to Proceed</li> <li>• The BLM would determine level of inventory needed. (Class I, II, or III, reconnaissance or none)</li> <li>• Inventory would be conducted by a permitted archeologist</li> <li>• Historic properties and cultural resources would be avoided if possible</li> <li>• The applicant would inform persons associated with the project that knowingly disturbing cultural resources (historic or archaeological) or collecting artifacts is illegal</li> <li>• Perform viewshed reclamation when the setting of a site contributes to the significance of the property</li> </ul>
Paleontology	<ul style="list-style-type: none"> <li>• Impacts to paleontological resources of scientific interest</li> </ul>	<ul style="list-style-type: none"> <li>• If paleontological resources of potential scientific interest are encountered (including vertebrate fossils and deposits of petrified wood), leave them intact and immediately bring them to the attention of the BLM Authorized Officer</li> </ul>

Critical Element/Resource	Potential Concerns	Actions to Minimize or Avoid Impacts
Native American Religious Concerns	<ul style="list-style-type: none"> <li>• Native American concerns</li> </ul>	<ul style="list-style-type: none"> <li>• BLM to consult with potentially affected Native American tribes. Native American consultation has already been carried out for this project</li> </ul>
Non-Native Invasive Species	<ul style="list-style-type: none"> <li>• Increasing weed infestation from existing local sources</li> <li>• Introduction of new weed infestations by importing new seed sources from equipment</li> <li>• Herbicide application</li> <li>• Inspection of source sites such as borrow pits, fill sources, or gravel pits used to supply inorganic materials</li> <li>• Construction site management</li> </ul>	<ul style="list-style-type: none"> <li>• Determine status of noxious weed infestations along access routes and in proximity to operations</li> <li>• Barrick would continue to work with the BLM, the Tri-County Weed District, and the Newark Valley/Long Valley Cooperative Weed Management Area to prevent the spread of invasive, non-native species</li> <li>• Noxious weed survey in areas of proposed disturbance</li> <li>• Areas of concern flagged in the field by a weed scientist of qualified biologist.</li> <li>• Avoid driving through established weed areas</li> <li>• Educate equipment operators to recognize and avoid weed areas</li> <li>• Interim and final seed mixes, hay, straw, or other organic products used for reclamation activities would be certified weed-free</li> <li>• Reclamation would normally be accomplished with only native seeds</li> <li>• Mixing herbicides and rinsing herbicide containers and spray equipment would be conducted only in areas that are safe distance from environmentally sensitive areas and points of entry to bodies of water</li> <li>• Methods used to accomplish weed objectives would consider seasonal distribution of large wildlife species</li> <li>• No noxious weeds would be allowed on the site at the time of reclamation release</li> </ul>
Special Status Animal Species	<ul style="list-style-type: none"> <li>• Herbicides application in areas of special status species</li> <li>• Sage grouse leks</li> <li>• Utilities in sage grouse lek areas</li> </ul>	<ul style="list-style-type: none"> <li>• When managing weeds in areas of special status species, carefully consider the impacts of the treatment on such species. Wherever possible, hand spraying of herbicides is preferred over other methods.</li> </ul>

Critical Element/Resource	Potential Concerns	Actions to Minimize or Avoid Impacts
	<ul style="list-style-type: none"> <li>• Ferruginous hawk nests</li> <li>• Non-native invasive species control in special status species areas</li> <li>• Pygmy rabbits and pygmy rabbit habitat</li> <li>• Special status bat species</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid line-of-sight views between power line poles and sage grouse leks, whenever feasible</li> <li>• Determine location of active leks and avoid during strutting season</li> <li>• Identify potential pygmy rabbit habitat, and avoid pygmy rabbits, if encountered</li> <li>• Do not conduct noxious and invasive weed control within 0.5 mile of nesting and brood rearing areas for special status species during the nesting and brood rearing season</li> <li>• Avoid ferruginous hawk nests</li> <li>• Consult with U.S. Fish and Wildlife Service if appropriate</li> <li>• Conduct bat surveys, where appropriate</li> </ul>
Hazardous and Solid Wastes	<ul style="list-style-type: none"> <li>• Disposal of toxic and hazardous materials and solid wastes</li> <li>• Herbicide application</li> <li>• Accidental spills of hydrocarbons that could contaminate water, soil, and vegetation</li> <li>• Storage of hazardous materials</li> <li>• Handling of hazardous and solid wastes</li> <li>• Transporting hazardous materials</li> </ul>	<ul style="list-style-type: none"> <li>• Properly dispose of deleterious materials or substances. Take measures to isolate, control, and properly dispose of toxic and hazardous materials.</li> <li>• Remove and properly dispose of trash, garbage, debris, and foreign matter. Maintain the disposal site and leave it in a clean and safe condition. Do not allow burning at the site</li> <li>• Prior to commencing chemical control programs, and on a daily basis for the duration of the project, the certified applicator would provide a suitable safety briefing to personnel working with or in the vicinity of the herbicide application. This briefing would include safe handling, spill prevention, cleanup, and first aid procedures.</li> <li>• Do not drain oil or lubricants onto the ground surface. Immediately clean up spills under 25 gallons; clean up spills over 25 gallons as soon as possible and report the incident to the BLM Authorized Officer and NDEP as required</li> <li>• Store and transport petroleum products such as gasoline, diesel fuel, and lubricants in approved containers</li> </ul>



Critical Element/Resource	Potential Concerns	Actions to Minimize or Avoid Impacts
		<ul style="list-style-type: none"> <li>• Properly store hazardous materials in separate containers to prevent mixing, drainage, or accidents</li> <li>• Follow Barrick and contractor SOPs for handling hazardous and solid waste</li> <li>• Clean up spills in accordance with NDEP guidelines</li> </ul>
Migratory Birds	<ul style="list-style-type: none"> <li>• Migratory bird nesting</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct nesting surveys within one week of disturbance if disturbance needs to occur between April 15 and July 15</li> </ul>
Soils	<ul style="list-style-type: none"> <li>• Soil erosion (wind and water)</li> </ul>	<ul style="list-style-type: none"> <li>• When preparing the site for reclamation, include appropriate BMPs as determined appropriate for site-specific conditions.</li> <li>• Use existing roads as much as possible</li> <li>• Store growth media in stockpiles</li> <li>• Seed with interim seed mix if stockpiles would remain over the growing season</li> </ul>
Vegetation	<ul style="list-style-type: none"> <li>• Loss of native vegetation</li> </ul>	<ul style="list-style-type: none"> <li>• Where seeding is required, use appropriate seed mixture and seeding techniques approved by the BLM Authorized Officer</li> <li>• Reclaim with interim and final seed mixes</li> <li>• Generally conduct reclamation with native seeds that are representative of the indigenous species present in the adjacent habitat. Possible exceptions would include use of non-native species for a temporary cover crop to out-complete weeds. Ensure seed mixes are approved by the BLM Authorized Officer prior to planting.</li> <li>• An area is considered to be satisfactorily reclaimed when disturbed areas have been recontoured to blend with the natural topography, erosion has been stabilized, and an acceptable vegetative cover has been established in accordance with <i>Nevada Guidelines for Successful Revegetation</i> prepared by NDEP, BLM, and the U.S. Department of</li> </ul>

Critical Element/Resource	Potential Concerns	Actions to Minimize or Avoid Impacts
		<p>Agriculture Forest Service</p> <ul style="list-style-type: none"> <li>Curl-leaf mountain mahogany (<i>Cercocarpus ledifolius</i> Nutt), single-leaf pinyon pine (<i>Pinus monophyllia</i>) and juniper (<i>Juniperus osteosperma</i>) trees would be removed only as necessary in Plan area</li> </ul>
Wildlife	<ul style="list-style-type: none"> <li>Active raptor nests</li> <li>Mule deer migration</li> <li>Bat hibernacula</li> </ul>	<ul style="list-style-type: none"> <li>Protect active raptor nests in undisturbed areas within 0.5 mile of areas proposed for vegetation conversion using species-specific protection measures. Inventory areas containing suitable nesting habitat for active raptor nests prior to initiation of any project.</li> <li>Consider seasonal distribution of large wildlife species when determining methods used to accomplish weed and insect control objectives.</li> <li>Reclaim as soon as activities are complete</li> <li>Do not disturb bats while they are hibernating</li> <li>Implement and maintain cut-outs in the haul road berms to facilitate mule deer migration</li> </ul>
Wetlands	<ul style="list-style-type: none"> <li>Disruption of wetlands</li> <li>Loss of spring recharge</li> <li>Protection of wetland vegetation</li> </ul>	<ul style="list-style-type: none"> <li>Avoidance of disturbance in wetlands</li> <li>Hydrology studies to determine potential impacts</li> </ul>
Lands Use and Access	<ul style="list-style-type: none"> <li>Post-mining configuration of access roads</li> <li>Public safety</li> </ul>	<ul style="list-style-type: none"> <li>Barrick would establish post-mining access in conjunction with BLM travel management plan</li> <li>Traffic control measures would be used during operations</li> </ul>
Range Resources	<ul style="list-style-type: none"> <li>Loss of forage</li> </ul>	<ul style="list-style-type: none"> <li>Reclaim as soon as activities are complete</li> </ul>
Wild horses	<ul style="list-style-type: none"> <li>Traffic around wild horses</li> <li>Loss of forage</li> </ul>	<ul style="list-style-type: none"> <li>If a project involves heavy or sustained traffic, require road signs for safety and protection of wild horses</li> <li>Reclaim as soon as activities are complete</li> </ul>
Visual resources	<ul style="list-style-type: none"> <li>Viewshed protection</li> </ul>	<ul style="list-style-type: none"> <li>Reclaim as soon as activities are completed</li> </ul>

Critical Element/Resource	Potential Concerns	Actions to Minimize or Avoid Impacts
Recreation	<ul style="list-style-type: none"> <li>• Recreation use</li> <li>• Public safety</li> </ul>	<ul style="list-style-type: none"> <li>• Reclaim as soon as activities are complete</li> </ul>

## **Appendix D**

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### **State-protected and BLM Sensitive Species Which May Occur Within the Plan Area**

#### **D.1 – Mammals and Reptiles**

#### **D.2 - Birds**

**Nevada state-protected and BLM sensitive mammal and reptile species which  
may occur in the Plan Area**

Common Name	Scientific Name	FWS	BLM	USFS	STATE
Spotted bat	<i>Eurderma maculatum</i>	Sensitive	Sensitive	Sensitive	Protected
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>		Sensitive	Sensitive	Protected
Pallid bat	<i>Antrozous pallidus</i>		Sensitive		Protected
California myotis	<i>Myotis californicus</i>		Sensitive		
Silver-haired bat	<i>Lasionycteris noctivagans</i>		Sensitive		
Hoary bat	<i>Lasiurus cinereus</i>		Sensitive		
Small-footed myotis	<i>Myotis ciliolabrum</i>		Sensitive		
Long-eared myotis	<i>Myotis evotis</i>		Sensitive		
Little brown myotis	<i>Myotis lucifugus</i>		Sensitive		
Long-legged myotis	<i>Myotis volans</i>		Sensitive		
Yuma myotis	<i>Myotis yumanensis</i>		Sensitive		
Western pipistrelle bat	<i>Pipistrellus hesperus</i>		Sensitive		
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>		Sensitive		Protected
Big brown bat	<i>Eptesicus fuscus</i>		Sensitive		
Pygmy rabbit	<i>Brachylagus idahoensis</i>		Sensitive	Sensitive	Protected
Short-horned lizard	<i>Phrynosoma douglassii</i>		Sensitive		
Sonoramountain king snake	<i>Lampropeltis pyromelana</i>		Sensitive		Sensitive

**Nevada state-protected and BLM sensitive bird species which may occur in the  
Plan Area**

Common Name	Scientific Name	FWS	BLM	USFS	STATE
Bald Eagle	<i>Haliaeetus leucocephalus</i>			Sensitive	Protected
Golden Eagle	<i>Aquila chrysaetos</i>		Sensitive		Protected
Merlin	<i>Falco columbarius</i>				Protected
Prairie Falcon	<i>Falco mexicanus</i>		Sensitive		Protected
Peregrine Falcon	<i>Falco peregrines</i>		Sensitive	Sensitive	Protected
American Kestrel (Sparrow hawk)	<i>Falco sparverius</i>				Protected
Cooper's Hawk	<i>Accipiter cooperii</i>				Protected
Ferruginous Hawk	<i>Buteo regalis</i>		Sensitive		Protected
Northern Goshawk	<i>Accipiter gentilis</i>		Sensitive	Sensitive	Protected
Northern Harrier (Marsh hawk)	<i>Circus cyaneus</i>				Protected
Red-tailed Hawk	<i>Buteo jamaicensis</i>				Protected
Rough-legged Hawk	<i>Buteo lagopus</i>				Protected
Sharp-shinned Hawk	<i>Accipiter striatus</i>				Protected
Swainson's Hawk	<i>Buteo swainsoni</i>		Sensitive		Protected
White-faced Ibis (White-faced glossy ibis)	<i>Plegadis chihi</i>				Protected
Belted Kingfisher	<i>Ceryle (Megaceryle) alcyon</i>				Protected
Common Nighthawk	<i>Chordeiles minor</i>				Protected
Osprey	<i>Pandion haliaetus</i>				Protected
Barn Owl	<i>Tyto alba</i>				Protected
Burrowing Owl	<i>Speotyto (Athene)</i>		Sensitive		Protected



Common Name	Scientific Name	FWS	BLM	USFS	STATE
	<i>cunicularia</i>				
Great horned Owl	<i>Bubo virginianus</i>				Protected
Long-eared Owl	<i>Asio otus</i>		Sensitive		Protected
Short-eared Owl	<i>Asio flammeus</i>		Sensitive		Protected
American White Pelican	<i>Pelecanus erythrorhynchos</i>				Protected
Turkey Vulture	<i>Cathartes aura</i>				Protected
Greater sage grouse	<i>Centrocercus urophasianus</i>	Candidate	Sensitive	Sensitive	Protected
Loggerhead shrike	<i>Lanius ludovicianus</i>		Sensitive		Protected
Pinion jay	<i>Gymnorhinus cyanocephalus</i>		Sensitive		Protected
Juniper titmouse	<i>Baeolophus griseus</i>		Sensitive		Protected

## **Appendix E**

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### **Cumulative Effects**

#### **E.1-Interactions Between Resources and Interrelated Projects**

#### **E.2-Interrelated Projects Disturbance within CESA**



Interrelated Projects	Natural Processes																			
	Water Resources	Geology and Minerals	Paleontology	Soils	Vegetation resources	Non-Native Invasive Species	Wildlife	Wetlands, Riparian Zones, and Waters of the U.S.	Range Resources	Wild Horses	Land Use and Access	Recreation	Air Quality	Visual Resources	Noise and Vibration	Socioeconomics	Environmental Justice	Cultural resources	Native American religious concerns	Hazardous and Solid Waste/Hazardous Materials
Alligator Ridge Mining Project	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
Midway Gold-Pan Mining Project	x				x	x	x						x							
Limousine Butte Exploration Plan	x		x					x	x	x			x		x	x				
Yankee Mining	x	x	x	x	x	x	x	x	x	x			x		x	x			x	
Wind Energy Projects	x				x	x	x			x			x		x	x			x	
Oil and Gas Wells					x	x	x						x		x	x			x	
Socioeconomics-Specific Projects								x							x					
Wildland Fire	x			x	x	x	x	x	x	x	x	x	x	x				x		
Spread of Noxious/Invasive Weeds	x			x	x	x	x	x	x	x	x	x	x	x						
Expansion of Pinyon and Juniper Trees and other Woody Species					x	x	x	x	x	x	x	x	x	x					x	
Spread of Forest Insects and Diseases					x	x	x	x	x	x	x	x	x	x					x	

**Interrelated Project Disturbance within CESAs**

<b>Categories</b>	<b>CESA Area Groups</b>					
	<b>Air Quality, Water Resources, Soils, Non-Native Invasive Species, and Vegetation Cumulative Effects Study Area</b>	<b>Minerals Resources Cumulative Effects Study Area</b>	<b>Wildlife Cumulative Effects Study Area</b>	<b>Cultural Resources Cumulative Effects Study Area</b>	<b>Visual, Recreation, and Land Use and Access Cumulative Effects Study Area</b>	<b>Hazardous and Solid Waste/Hazardous Materials Cumulative Effects Study Area</b>
CESA Area (acres)	2,071,000	199,000	1,795,000	775,000	317,000	17,600
Past Actions Disturbance Subtotal (acres)	2,800	1,600	2,900	500	1,100	400
Present Actions Disturbance Subtotal (acres)	9,100	8,600	9,000	9,000	9,000	8,600
Reasonably Foreseeable Future Disturbance Subtotal (acres)	2,700	1,600	1,600	1,600	1,200	600
<b>Total Surface Disturbance (acres)</b>	<b>14,600</b>	<b>11,800</b>	<b>13,500</b>	<b>11,100</b>	<b>11,300</b>	<b>9,600</b>
<b>Disturbance as Percent of CESA (%)</b>	<1	6	<1	1	4	55